

THE
PRACTICE
OF
PHYSIC
IN GENERAL,
AS DELIVERED IN A
COURSE OF LECTURES
ON THE
THEORY OF DISEASES,
AND THE
PROPER METHOD OF TREATING THEM.

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LECTURE XIII.

*On medical Instruments, or the various
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§ 1632. IV. **I** Shall now proceed to treat of the *medical* INSTRUMENTS, or of the various sorts of remedies proper for the cure of diseases; but I apprehend it may be useful, first to take notice of the two arts of PHARMACY and CHEMISTRY, as necessary to the production of many medicines absolutely needful for removing some distempers.

§ 1633. PHARMACY is the art of collecting and preparing the various parts of the *materia medica* for medicinal uses, and of compounding with them medicines for the relief of the sick.

§ 1634. This art is chiefly exercised in making, by distillation, simple and spirituous *waters*; and in making medicated *wines*, *honeys*, *sugars*, *tinctures*, *powders*, *simple* and *compound*, called *species*; *electuaries*, *pills*, *troches*, and *lozenges*; *oils*, and *balsams*, *ointments*, and *plaisters*; and various extemporaneous medicines, according to the direction of the physician, or surgeon, or apothecary.

§ 1635. CHEMISTRY is the art of dividing and separating the united parts of any natural body or substance in various PROCESSES, or different modes of operation; and likewise of uniting the separate

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parts of natural bodies; and all operations of chemistry are chiefly by the help of fire.

§ 1636. The principal operations in *chemistry* are these, viz. 1. *Calcination*. 2. *Distillation*. 3. *Sublimation*. 4. *Precipitation*. 5. *Corrosion*. 6. *Extraction*; and 7. *Crystallization*.

§ 1637. I shall not explain the various operations in *pharmacy* or *chemistry*, it being unnecessary; but proceed to treat of *medical INSTRUMENTS*, both as to the FORMS of them, and as to the MATERIALS of them.

§ 1638. I. As to the FORMS of *medical INSTRUMENTS*, or of the remedies contrived for the cure of diseases. These may be divided into two sorts, viz. 1. *Internal*. 2. *External*.

§ 1639. I. I shall give a brief *account* of the forms of *internal* medicines; that is, of medicines intended to be taken in at the mouth of the patient. These are either, 1. *Liquid*; or, 2dly, *Solid* medicines: but, 1. I shall consider the forms of *liquid* medicines, particularly the following:

§ 1640. 1. HAUSTUS, or a DRAUGHT. This is a liquid medicine, and to be taken for a dose. This formerly used to be called a potion.

§ 1641. This form (according to the ingredients it is composed of) may subserve all sorts of purposes, viz. of *evacuants*, *alteratives*, and *restoratives*.

§ 1642. As to the quantity, I should not prescribe more than two ounces, which make four common large spoonfuls; and often I prescribe only three. For children I would not exceed one spoonful; and for infants, if I prescribed in the liquid form, one spoonful should make two, or three, or four doses.

§ 1643. If I think it needful to order any powder in a draught that will not dissolve, I would

not

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not exceed thirty grains; but less will often suffice for adult persons.

§ 1644. As to the sweetening a draught; if there be no *acid*, and no *saline* ingredients in it, one sixteenth part of sugar, or syrup, may be sufficient to sweeten it; but if the draught be *saline* of any kind, or *acid*, an eighth part of syrup, or of sugar, will hardly be sufficient to bring it to an agreeable taste.

§ 1645. I may observe, that SUGAR is of great use mixed with many *medicines*, as well as mixed with various aliments, both *liquid* and *solid*: as it is a substance, which consists of the *salts* and *oils* of the plants that yield them, and is of a saponaceous nature.

§ 1646. Dr. BOERHAAVE esteemed it the *purest soap*. He says, *Ita SACCHARUM, quod est sapo purissimus, vel sal vere essentialis oleosus, &c.* (*Elementa Chæmiæ*, p. 138.)

§ 1647. And that it is of great efficacy in dissolving *oils*, is a thing known to every *apothecary*. So

§ 1648. When it is taken into the stomach, diluted with some *aqueous* liquor, it has an aptitude to mix with a *viscid* blood, and with any *slimy* humours that may happen to adhere to the sides of the animal vessels, to disunite their cohesive particles, and dislodge them; and thus may serve to cleanse the coats of the vessels; to remove obstructions, and the *viscid* quality of the animal fluids which occasioned them.

§ 1649. Dr. BOERHAAVE (from the aptitude and efficacy of sugar, in mixing with and dividing the component parts of oils) very justly deduces the virtue of it in human bodies;

Observing that, diluted with the animal fluids, it makes a sort of a *saponaceous lixivium*, which

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by the action of the vital organs dissolves *oily* and *viscous* humours. His words are these: *Inde ut scitur virtus sacchari in corpore humano, ubi latice naturali dilutum lixivium præbet saponaceum, quod oleosa, viscosa, vi vitæ adjuvante dissolvit, ibid. p. 139.*

It may frequently be of great use in medicines mixed with various *nitrous* salts, &c.

§ 1650. 2. *JULEPS*; these likewise are liquid *internal* medicines, subservient to different purposes, e. g. to wash down the doses of *solid* medicines, e. g. *powders, boles, electuaries, pills, &c.* and then they should be composed of ingredients which yield a grateful flavour, and sweetened to a pleasant taste, and should look *clear*.

§ 1651. And in quantity I think they should not exceed eight ounces, which will allow four spoonfuls to be drank after a *bolus* every six hours, till four doses are taken.

§ 1652. But if the *julep* is to be for persons in low life, in strait and needy circumstances, it may be compounded with *salts* of any kind, as the case may require, or with any other proper *alterative, evacuating, or restorative* ingredients.

§ 1653. In this case (§ 1652.) I seldom exceed six or eight ounces in quantity; and then direct that two spoonfuls be taken every two or three hours, till the whole is taken.

§ 1654. 3. *MIXTURA*, or a mixture, is another form of internal liquid medicines. And I call that a *mixture*, when such ingredients are added to a liquor clear in itself, as renders it *opaque*, that you cannot see through it.

§ 1655. Thus gum ammoniacum dissolved in any fluid, &c. and thus added *bole, diascordium, &c.* to the aq. cinam. &c. may be called mixtures, &c.

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§ 1656. 4. APOZEMA, five DECOCTUM, is a liquid internal medicine, made by decocting

Roots,

Woods,

Barks,

Herbs,

Seeds, &c. in any proper liquor; but river water I prefer.

§ 1657. It may be observed, that by DECOCTING the *roots, barks, woods, leaves, and seeds* of *trees, and plants*, used in *medicines*, those qualities may be separated from them, which were latent in them, and which cannot be obtained by any hot *infusion* of them. [Vid. LOBB on the Stone, § 233.]

§ 1658. In the experiments I made with apples, for finding out whether they had any quality dissolvent of the stone, I found a *dissolvent* quality in the decoction of them, which was not near so strong in the *infusions* or *teas* made of that fruit. [Ib. § 232.]

§ 1659. In the experiments I made with tea, I found no dissolvent quality in the infusions of it. [Ib. § 259.]

§ 1660. But the decoction made by putting the tea into boiling water proved a good dissolvent, [Ibid. § 915.]

§ 1661. And I found, that the most effectual way to extract the virtues or qualities of vegetable substances, was to put them into water, while it was boiling. [Ibid. § 922.]

§ 1662. The quantity of the ingredients to be decocted for making a pint of apozem cannot here be fixed: it must vary according to the nature of those which are used: — generally two ounces may be abundantly sufficient.

§ 1663. As for the uses of this form, it may be sufficient to observe, that we may in it prescribe

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evacuants, or alteratives, or restoratives; and that it is generally more proper in *chronical* than in acute diseases.

§ 1664. The dose of an *apozem* may be from two to six spoonfuls, according to the age and bulk of the patient, and nature of his disease.

§ 1665. 5. An INFUSION is the *extraction* of the virtues of some medicinal *herbs, flowers, seeds, &c.* by pouring boiling water on them, and giving them a hot and close digestion for one quarter, or an half, or a whole hour.

§ 1666. The quantity of the infusion made at one time, I think, should not be more than what is likely to be used in one day; and half a pint may be a sufficient quantity.

§ 1667. Four or six drachms of the ingredients may generally be sufficient for making such a quantity of an infusion: though this quantity must here also vary according to the nature of the ingredients.

§ 1668. 6. An EMULSION is made by pounding in a mortar *almonds* blanched, or various other *kernels, or seeds*; and then mixing them with a proper quantity of some convenient liquors; which, straining through a cloth, produces a kind of milk. It may be prescribed in the following manner:

R *Amygdal. dulc. decorticarum* ℥ii.

Decoct. bord. ℥x.

Aq. cinamom. spirituos.

Syr. balsamic. āā ℥i. *m. f. f. d.*

Emulso *cujus tepide bibat* ℥ii. *vel* iii. *ad libitum.*

§ 1669. 7. JUICES (*succi*) may be called a different form of internal medicines: and there is one extemporaneous medicine directed in the new *Pharmacopoeia* of this sort, called *succi scorbutici*, which is a good medicine, &c.

§ 1670.

§ 1670. The way of preparing the juices of *herbs* for medicinal use, is by pounding them in a marble mortar with a wooden pestle, then expressing the *juice*; and after it has stood a sufficient time for the *fæces*, or dreggy part of it, to subside, pouring off the clear juice for use.

§ 1671. But sometimes the medicine will be of greater efficacy if the juice be given with its *fæces*, and onlyedulcorated with sugar to a grateful taste.

§ 1672. 8. *AQUÆ STILLATITIÆ SIMPLICES*, (SIMPLE distilled waters) which are the *waters* drawn off in an *alembick* from any *root*, *plant*, *bark*, *seeds*, *flowers*, &c. only with common water, without the addition of any vinous spirits.

§ 1673. These carry with them some of the virtues of the materials from which they are drawn; and are useful in the composition of *juleps* for all sorts of intentions.

§ 1674. But often I prescribe *river water* in the stead of them; especially for some persons in whose stomachs they are apt to rise: and for *infants* or *children* that refuse every thing that sensibly affects their taste.

§ 1675. 9. *AQUÆ STILLATITIÆ SPIRITUOSÆ*, or *strong waters*, are useful when mixed with simple distilled waters, or with pure elementary water, so as to abate the strength of them to that degree the physician shall think needful for rendering a *julep* most suitable to the case of his patient. They make a *cordial* (which is one sort of *restorative* medicines) of great use when the pulse is too *weak*,—when the nervous fluid is deficient, and the spirits are languid.

§ 1676. According to our new *Pharmacopoeia*, one pound, or a pound and half of the substance to be distilled, with one gallon of brandy, and so much water as is needful to prevent an *empyreuma*,

reuma, are the proportions for making a gallon of strong waters, of any sort or denomination.

§ 1677. 10. *TINCTURÆ SPIRITUOSÆ* (spirituous TINCTURES) are another sort of liquid medicines, of great use; as a great deal of the virtues of those drugs, from which the tinctures are made, are collected into small quantities of fluid; so a few drops will be a sufficient dose to procure sensible relief and benefit to the sick in many cases, &c.

§ 1678. 11. SPIRITS, e. g. *spiritus cornu cervi per se*, *spiritus salis ammoniaci*, &c. is another form of great use, on the same account that *tinctures* are. There are three sorts; 1. *Sulphureous*, which easily take flame. 2. *Acid*, which consist of acid particles and water, e. g. *sp. vitrioli*, *sp. sulphuris*, *sp. salis*, &c. 3. *Saline*, which consist of particles of volatile salt, and water, e. g. *sp. salis ammoniaci*, &c.

§ 1679. 12. *TINCTURÆ vinosæ, sive VINÆ medicatæ*, MEDICATED WINES, may be called another form of internal liquid medicines; because it is a different way of exhibiting to the sick the medicinal virtues of the materials infused in them, which may contribute to his cure. Every medicated wine may be called a *tincture*.

§ 1680. And this form is best for some purposes; and plainly preferable in some cases to those of *infusions* and *decoctions*, which only are proper for present use, and will spoil in a very few days: whereas a medicine in this form will remain good many weeks and months, &c.

§ 1681. 13. A SYRUP. This is another form of internal medicines compounded of medicinal *decoctions*, or *infusions*, or *juices*, nearly in the following proportion, viz. of the *liquor* one part, of *sugar*, or *honey* two parts; oftentimes less sugar is sufficient.

There

There is a great variety of these contrived for different purposes; some to be taken *per se*, others for sweetening *juleps*, making up *linctusses*, *electuaries*, *pills*, *bolusses*, &c. Our college directs the making twenty-one sorts.

§ 1682. The *virtues* of many *drugs*, *simple*, &c. are thus separated from the substances in which they subsisted; and preserved *in promptu* many months, for the occasions of the sick.

§ 1683. 14. OXYMELS is another form of fluid medicines: in the composition of which *honey* and *vinegar* are always two of the ingredients, on which account they have the name.

§ 1684. These are made to the consistence of a *syrup*. Our college directs three sorts: *oxymel exallio*, *oxymel scilliticum*, and *oxymel simplex*, which are all good medicines. Many more may be contrived to be extemporaneously made.

§ 1685. This sort of medicine is called *oxymel*, a Greek compound word from *οξος* *acetum*, and *μελι* *mel*.

§ 1686. 15. LINCTUS, ECLEGMA, OR LAMIA-TIVE, or as the Arabians call it *Lock*, or *Lokoch*, is a sort of fluid medicines, made to a consistence between that of a *syrup* and that of an *electuary*.

§ 1687. This sort is always compounded of *pectoral* ingredients, and appropriated to the relief of disorders of the *throat*, *lungs*, *tongue*, or *mouth*.

§ 1688. The direction for the use of this formerly was, that the patient should take it by licking it off from a *liquorice stick*: for which purpose the apothecaries, as I well remember, used to send a piece of liquorice root about the length of one's finger, and nearly as thick as one's little finger, with the bark scraped off from about half of it, which was beat to the form of a brush.

§ 1689. It has this name, *eclegma*, from *εκλειχω* *lingo*, unde *linctus*; *lambative* from *lambo*, which signifies, to lick, &c.

§ 1690. 16. BALSAMS are a form of fluid medicines more *spissid* than *oil*, but thinner or more liquid than a *liniment*.

§ 1691. There are natural balsams, as *balm* of *Gilead*, and *balsamum capivi*; artificial balsams for external use, as *balsamum traumaticum*, &c. and others to be taken at the mouth, as *balsamum sulphuris*, *balsamum succini*, &c.

§ 1692. OILS are another sort of medicine much used. They are of different kinds, and in our last pharmacopoeia thus distinguished:

1. Oils by EXPRESSION, as

Ol. amygdal. dulc. et amarar.

— *ex seminibus lini—sinap*, &c.

These are useful both internally and externally.

§ 1693. 2. Oils by DISTILLATION, which are termed ESSENTIAL OR CHEMICAL OILS; as

Ol. ex rad. fassafra.

Lign. rhodio.

Fol. absinthii.

Flor. chamæmel.

Sem. anethi.

è *Bacc. juniperi.*

ex Aromat. caryophill.

Nuc. mosch. &c.

Those which come off with the distilled waters, and swim on the surface of them, may be taken off by a proper separating funnel: such as sink to the bottom are separated by pouring the waters from them.

§ 1694. 3. Oils by INFUSION and DECOCTION;
as

Ol. hyperici.

— è *mucilaginis*, &c.

These are for external use.

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§ 1695. II. Having considered the principal different forms of *liquid*, or fluid internal medicines, I now proceed, in the second place, to take notice of the various forms of internal medicines of a solid consistence, more or less, e. g.

§ 1696. I. POWDERS; which form is most agreeable to some persons.

When it is necessary to be exact in the quantity of the dose, the prescription only should be for a single dose, with directions for the times of repeating it.

§ 1697. This form will serve for exhibiting a great variety of medicines; and subserve most intentions of internal remedies.

The dose is generally ʒss. *vel* ʒii. for adult persons,
 gr. v. *vel* x. for children,
 gr. ii. *vel* iii. for infants :

And may be prescribed in the following manner;

R *Antimon. diaphoret. i. e. calcis antimon.*

Rad. serpentar. Virg. āā gr. v.

*Pulv. contrayerv. comp. ʒi. m. f. pulvis pro
dose una sexta quaque hora ad iv. vices
sumenda, cum cochl. i. julepi sequentis.*

R *Aq. cinam. simpl. ʒivss.*

Aq. nuc. moschatæ ʒi.

Syr. balsamic. ʒss. m. f. julepum.

§ 1698. 2. A BOLUS. This is a form of internal, solid medicines, rolled into a globular figure, not bigger than can easily be swallowed by the patient for one dose.

The size of a small nutmeg, and not made too stiff, is proper.

§ 1699. For compounding a *bolus*, half a drachm of powder, with a sufficient quantity of a convenient syrup, is generally sufficient. But,

If one ingredient is ponderous, e. g. *cinnabar nativum*, *cinnabar antimonii*, the other ingredient may bear a larger proportion,

§ 1700.

§ 1700. This is the proper form for those who cannot take *pills*, and who disgust the taste of medicines; and may be prescribed thus:

℞ *Pulv. e chel. caner. comp.* ʒss.

Syr. balsamic. q. f. m. f. bolus.

§ 1701. 3. An ELECTUARY, OR ELECTARY. This is a form of internal, solid medicines, of the consistence of a conserve. It may be compounded of various sorts of powders, with conserves, and a sufficient quantity of some convenient *syrup*, or with honey.

§ 1702. If any *mineral* substance be ordered in an *electuary*, a proper quantity of some conserve should be mixed with it, that it may remain equally diffused through the whole composition, and not sink to the bottom of the mixture.

§ 1703. The quantity of an electuary I should not make to exceed four ounces; sometimes two, or sometimes one, may be sufficient.

§ 1704. To make an ounce of the *cortex Peru.* or *cortex eleutheriæ*, and such like substances in powder, into an *electuary*, will take up three or four ounces of syrup, and soon become dry; and therefore it may be most adviseable (when the bark or some other dry and light substance is to be prescribed in the form of an electuary) to prescribe in the following manner, viz.

℞ *Cortic. Peru. subtiliss. pulv.* ʒi.

Syrup. caryophyllorum, vel syrup. è succo limon,
q. f. M. f. electarium molle.

§ 1705. I often prescribe an electary only for four doses, thus, viz.

℞ *Æthiop. mineral.* ʒii.

Rad. serpentar. virg.

Gum. guaic. ā ā ʒi.

Conserv. lujulæ ʒii.

Syr. de althæa q. f. m. f. electarium cujus
capiat partem quartam pro dosi horis duode-
cimis.

Evacuants,

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Evacuants, alterants, and restoratives may be given in this form.

§ 1706. It is a very proper form in chronical distempers, where the use of medicines must be long continued. And one of the necessary forms for the poor, and persons in needy circumstances, whose poverty or neediness should always meet with a compassionate regard. There is not a great deal of more trouble in making an *electuary* of many doses, than in making a *bolus* for one.

§ 1707. 4. PILLS are another form of internal medicines, compounded of *powders, gums, &c.* mixed with some *extract, syrup, or glutinous mucilage*, to bring them to the consistence of a stiff paste; out of which pills may be formed of the size of *peas*, or less, according to the desire of the patient.

§ 1708. Two drachms of common ingredients, with a sufficient quantity of *syrup*, will make twenty-four pills of a middling size, thus:

R Rad. serpentar. virg.

Æthiop. mineral.

Mafs. pill. rusi.

Mafs. pill. gummos. ā ā ʒss.

Syr. croci q. s. m. f. pilulæ No. xxiv. quarum capiat iv. semel, vel bis in die; vel,

R Rad. zedoariæ.

Limatur. ferri.

Gum. ammoniac. ā ā ʒñ.

Syr. balsamic. q. s. m. f. pilulæ No. 24. quarum capiat iv. pro dosi.

§ 1709. In the first of these forms every dose contains five grains of each ingredient. In the latter, each dose contains near seven grains of each of them.

§ 1710. This form of pills is well adapted to the circumstances of the needy, and to those who would not taste the medicines they take.

§ 1711.

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§ 1711. *Evacuants, alterants, and restoratives* may be given in this form.

§ 1712. 5. *TABELLÆ, five MORSULI, vel MORSELLI, vel TROCHISCI, (LOZENGES)* are another form of internal, solid medicines;

And are made of some *powder*, simple or compound, with three or four times its weight of *sugar*, wrought into the consistence of a *paste* on a marble stone; then rolled out to the thickness of *lozenges*; out of which, with a knife, or with tin instruments, called *lozenge-cutters*, are cut *lozenges* of any shape, &c.

§ 1713. Medicines may be contrived in this form to answer divers important purposes, e. g.

1. As *pectorals*, &c. such are *trochisci bechici albi*; *trochisci bechici nigri*, &c.

2. As *alteratives*, attenuating, refrigerating, &c. e. g. *trochisci è nitro*, *trochisci è myrrha*, &c.

§ 1714. II. I am in the next place to consider those *medical INSTRUMENTS* which are for *external* use in the practice of physick:

And these may be divided into two sorts, viz.

1. *General*; which may be applied to any, or many parts of the body. 2. *Particular*; which are appropriated to some particular parts.

§ 1715. I. The *general* external remedies are chiefly the following, viz.

I. *EPITHEMA*, an *epitheme*. This word being a Greek term from the verb *ἐπιτίθειμι*, *impono*, might be used to signify any thing, or every thing applied to, or put on any part of the body; but custom has limited the signification of it, and divers writers mean by it some external medicine chiefly applied to the region of the heart, or liver.

§ 1716. Dr. BLANCARD represents it as an external liquid medicine applied by some cloth wetted with it.

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MORELLUS distinguishes the *epitheme* into *liquid* and *solid*.

§ 1717. A *liquid epitheme* may be composed of such ingredients as to serve very different purposes. It may be prescribed in this manner, viz.

R *Aq. fœnic. dulc.* ℥x.

Aq. hungaric.

Tinct. croci ā ā ℥i.

Aceti ℥iv. m. f. *epithema*, in vase vitreo reponendum, et cum stuphâ laneâ tepidè regioni hepatis admovendum; et quando exaruit vel refrixerit, renovetur applicatio, vicibus repetitis continuando per horæ quadrantem bis in die.

§ 1718. A *solid EPITHEME* may be compounded of some powders and conserves, to the quantity of four ounces, and be prescribed in the following manner, viz.

R *Nuc. moschat.*

Camphor. ā ā ℥i.

Conserv. flor. rorismarin. vel

Conserv. salviæ ℥iii.

Aq. hungaric. q. s. ut f. *massa consistentiæ mollioris electarii*, cujus uncia una super pannos linteos duplicatos spissè extendatur, et scrobiculo cordis tepidè applicetur. Horis sextis renovetur eadem applicatio.

§ 1719. Our college has directed the preparing two *epithemes*, viz. *epithema vesicatorium*, and *epithema volatile*; but these are for other intentions.

§ 1720. 2. FOMENTUM, *fomentatio*, *fotus* is an external medicine, to be applied for cherishing or comforting any part of the body. Some distinguish fomentations into *liquid* and *solid*.

§ 1721. I shall only consider the *liquid* sort, which may be made different ways, e. g. by decocting, or infusing in water such ingredients as are suitable to the occasion.

§ 1722.

§ 1722. As to the mode of application, it may be thus, viz. to immerge a piece of thick flannel doubled, or rather woollen cloth, in the liquor made hot; then to wring it out, and apply it very warm to the part affected, and when it grows dry, or cold, to take it off, and put on another. This is to be continued thus a quarter of an hour, or more, at a time, or less, as the case may require.

§ 1723. FOMENTS may be so compounded as to be of great service in *mortifications*, *paralytic numbness*, or *coldness*, or *loss of motion*, in any particular part; against external *inflammation*, and in some *incipient tumours*; and in divers *cutaneous distempers*.

§ 1724. The following may be a proper formula for a foment to be made by *decoction*, viz.

R Rad. *anulæ campanæ* ℥ii.

Sem. *anisi*.

cymini āā ℥i. coq. cum

Aq. *fluvial.* lbiii. ad lbii. dein liquori colato adde Sp. *vini tenuioris*,

Aceti āā lbss. m. pro fotu. Interdum liquori colato addantur, vice *aceti*,

Sal. ammoniac. ℥i. vel ℥ii.

§ 1725. 2. FOMENTS may be composed by mixture, in the following manner, viz.

R Sp. *vini rect.* ℥xii.

Tinct succini ℥iiiss.

Sp. *sal. ammoniac.* ℥ss. m. f. fotus quo pars affecta manu tepidâ foveatur ut opus fuerit.

This is proper in *paralytic disorders* of the limbs, &c.

§ 1726. A great variety of different intentions may be obtained by this sort of outward applications, when composed of suitable medicinal ingredients, &c.

§ 1727.

§ 1727. 3. Another external remedy, sometimes needful, is the SEMICUPIUM, *five* INFESSUS; that is, a BATH in which the patient sits up to his *navel*, or higher.

§ 1728. This may be made of warm water alone, or of water in which ingredients suitable to the occasion have been decocted.

§ 1729. This sort of half-bath is often proper and useful, when bathing the whole body would be inconvenient.

§ 1730. It is a useful remedy (when composed of proper ingredients) in *cholics*, in *nephritic* cases, painful swellings called the *piles*, suppressions of urine, disorders of the bladder, difficulty of making water, disorders of the womb, and pains in the hips, thighs, and legs.

§ 1731. Likewise it may be useful for procuring the *menfes*, and also for restraining their immoderate flux, if the water is medicated with proper ingredients: it may also be useful against obstinate costiveness, when other remedies prove ineffectual, &c.

§ 1732. The following may be a proper form of prescribing this kind of remedy:

R Rad. *altheæ* lbii. *fol. malvæ* lbiii. *sem. lini* lbj. *sem. anisi* lbiss. *bacc. junip.* lbj. *coq. cum aq. puræ congiis* 30 vel 40. *pro semicupio ad colicam, &c. in quo æger insideat per horæ quadrantem à pedibus ad umbilicum, mane et vesperi longe à pastu, exonerato alvo, per biduum, vel triduum prout opus fuerit.*

§ 1733. 4. VAPORARIUM, a *vapory*, is another sort of external remedy; and is the application of the hot steam of any proper medicinal *decoction*, most frequently to the inferior parts of the body. The application is made by putting a sufficient quantity of the hot decoction into a closetstool-pan, near two-thirds full, and the patient sitting over the *steam*.

§ 1734. When the liquor grows cool, it should be poured out, and the pan filled again with fresh decoction made hot.

§ 1735. This sort of medicine is chiefly useful in disorders of the *anus*, and in female bodies; it may relieve some disorders of the bladder, and may be of special service to procure the *menfes*, if the ingredients for the decoction are fitly chosen, &c.

§ 1736. The manner of prescribing this sort of remedy may be thus, viz.

R *Rad. althææ* ℥i.

Sem. anisi.

Sem. lini ā ā ℥ii. *et cum aquæ congiis* iii. *fiat decoctum, cujus vaporem excipiat ex sellâ perforatâ, ollâ subditâ decocto præscripto et calido sufficienter plenâ.*

§ 1737. There is another way of obtaining a vapour, or medicinal *steam*, i. e. when the medicinal liquor being put into the closestool-pan, a stone, or an iron heater made red hot, is put into it; thus making a steam by putting a red hot stone, brick, or iron into vinegar, and the patient receiving the vapour in the manner described. This has been useful in discussing some *hard* tumours, &c.

§ 1738. And has proved beneficial in the time of a *plague*, by rendering the air of a room replete with *effluvia*, proper against the infection of pestilential particles diffused in it.

§ 1739. Considerable advantage may likewise be obtained this way in *ulcers* of the *anus*, and of the *vaginæ uteri*.

§ 1740. These two last sorts of remedies are but seldom prescribed that I know of, yet may be greatly useful when other medicines fail of success.

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§ 1741. A *vapory* may likewise be useful in some diseases of the head, e. g. pains in the fore-part of the head, too great a propensity to sleep, &c. and may be prescribed in the following manner:

R *Summitat. rorismarin. foliorum salviæ āā ʒi. coq. cum aq. fluvial. q. s. ad lbi. dein liquori colato adde aceti, vel sp. vini rect. lbi. et f. mistura cujus lbf. calidissime ponatur in poculo figulino orificio angustiori, et inde naribus, et ore, vapores excipiantur.*

§ 1742. 5. BALNEUM, a *bath*; in which the whole body, except the head, or with the head, is immersed in WATER, *cold* or *warm*.

§ 1743. This is what I mean by a *balneum*. But some medical writers recommend *bathing* in milk, or in *milk and water*, and in waters medicated.

But bathing in *fresh water*, warm or cold, or in *salt water*, will answer most intentions of using a BATH: and therefore I shall only with brevity consider these with their effects:

1. Bathing in *warm water* *relaxes* the vessels, opens the pores of the *epidermis*, cleanses the surface of the body, and is useful for persons whose vessels are *rigid*, and whose blood and other fluids are too *spissid*, and who are habitually costive, &c.

§ 1744. But it is improper for persons of a *lax* habit of body, whose vessels are *lax*, flesh *flabby*, and nerves weak, &c.

§ 1745. *Weak NERVES* and *strong NERVES* are expressions pretty frequent, but need a little explanation.

By the expression, a person of *weak NERVES*, I understand, one whose muscular fibres and vessels are, in comparison of another of like age and bulk, weaker; and whose quantity of *nervous*

fluid is less or more diluted; *et vice versâ* as to a person of *strong* NERVES.

For strictly and properly speaking, since the nerves are neither *distractile* nor *contractile*, the characters of *strong* or *weak*, are not fitly applicable to them.

§ 1746. 2. Bathing in *cold* water is of great efficacy: it straitens the vessels, closes the pores, renders the motion of the blood through its vessels, in or near the exterior *superficies* of the body, slower for a while; and for that time quicker through the *interior* vessels and the *viscera*, and diminishes the external heat.

§ 1747. It likewise stops the perspiration for a while; but when the pressure of the cold water is over, the heat returns in a greater degree: the *contractile* force of all the muscular fibres and vessels is increased, and all the vital functions are performed with greater vigour.

§ 1748. All the muscles are strengthened, the insensible perspiration increased. The action of the cold bath is like drawing the string of a bow.

This is evident from reason and daily experience.

§ 1749. The *bathing* in *cold* water therefore is a proper remedy for persons of a *lax* habit, *lax* vessels; whose flesh is *flabby*, whose *nerves* are *weak*, and who are subject to cold. It is a good remedy against the *rickets*, &c.

§ 1750. It has proved very beneficial to divers *paralytic*, *hysteric*, and *hypochondriac* patients; and in all *cutaneous* distempers.

But it is improper for persons, whose fibres and vessels are *rigid*; and improper in cases of obstinate and inveterate *obstructions*, and when any of the *viscera* are unsound: it is therefore not proper in phthisical cases.

§ 1751. As for *infants* and very young children, whose parents are afraid of having them immersed,

I have

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I have ordered the rubbing their bodies with cold water.

§ 1752. 3. BATHING in *salt water* is abundantly more efficacious in curing *cutaneous* diseases, and likewise for persons who have been bit by mad dogs.

§ 1753. I have been informed of persons cured of the itch, solely by immerfions in the sea. How frequently they used this method, or how long they continued it, I have not heard.

§ 1754. But I may observe, that persons, who live at too great a distance from the sea, or whose circumstances or affairs will not admit of their going to the sea, may nearly yet make for themselves the same medicine at home, by dissolving a sufficient quantity of *sea-salt* in river, or other common water.

§ 1755. I may add, that *bathing* in salt-water has proved effectual in curing some *dropsies*; and therefore is a suitable remedy against that disease, &c. if it has not been of very long continuance.

END of LECTURE XIII.

LECTURE XIV.

On nervous symptoms: and on various sorts of remedies.

§ 1756. **M**EDICAL INSTRUMENTS for *external* use were divided into two classes.

1. General; 2. Particular.

We are still on the first of these, and have considered five sorts of external remedies: the next, or

§ 1757. 6th, is the *SUDATORIUM*, by which I mean a *hot* room to procure sweat, such as we have in our *bagnios*.

§ 1758. Various have been the contrivances in different countries to force the *evacuation* by *SWEAT*: I need not give an account of them, but shall observe in what cases this remedy is proper, and may prove very beneficial.

§ 1759. It is proper in *dropsies*, especially that called the *anasarca*, and in the *leucophlegmatia*; and, indeed, whenever the *serous* and lymphatic humours exceed in quantity; — when the *BLOOD* is *poor* and *watery*, and when there is too great a *tenuity* in the animal fluids.

§ 1760. By this means the excess in the quantity of the lymphatic humours may soon be diminished; and therefore this is one proper evacuation, when such an *excess* is subsisting.

By this means a too great *tenuity* of the animal fluids may be abated.

§ 1761. But it is very *improper* for persons of a *sanguine* constitution, and for persons whose vessels are *rigid*, and whose fluids are too thick, and who are naturally *costive*: these should not use the *bagnio*, &c.

§ 1762.

§ 1762. 7. OILS are another sort of external medicines of great use in the practice of physic, e. g. *oleum amygdalarum dulcium*, *oleum lini*, &c. and particularly the *oleum olivarum per se*, for removing the tumours that happen in womens breasts from milk; and against the effects of the bite of vipers, and against convulsions, &c. This also, if mixed with an equal part of *vinegar*, and applied warm, has been of great efficacy in removing some pains of the side, &c. and in taking off some inflammations, as I have found in my own experience.

§ 1763. 8. LINIMENTUM, a *liniment*, is a form of external medicines, of a consistence betwixt an oil and an ointment: the basis of which is some oil, or lard.

§ 1764. This form is of great use in the practice of physic, and subserves various intentions. It is useful in many *cutaneous* diseases; useful in cases of external pains, and in some tumours, and against a *paralysis* of any particular external part of the body. It may be prescribed in the following manner, viz.

℞ *Campbor. pulv.* ℥ss. *sperm. ceti* ʒi. *ol. olivar.* ʒvii. *m. f. linimentum*; vel,

℞ *Saponis mollis, vel duri* ʒi. *ol. olivar.* ʒvii. *ol. rhodii gut.* iv. *m. f. linimentum*; vel,

℞ *Ol. macis per expressionem* ʒi. *ol. olivar.* ʒvii. *ol. absinth. gut.* iv. *m. f. linimentum*.

§ 1765. 9. UNGUENTUM, an ointment, is a form of external medicines a little thicker in consistence than a *liniment*: it is made of oil, lard, or butter, with some powders, or juices, and wax; and subserves various intentions, according to the nature and quality of the ingredients of which it is compounded.

§ 1766. There are various medicines of this sort directed in our new *pharmacopoeia*—The con-

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sideration of the nature or qualities of the ingredients, wherewith they or other compositions are made, will lead us to the knowledge of those uses to which they may be properly applied: thus,

The *unguentum album camphoratum* may be useful against *tetters* and other *saline* eruptions:

The *unguentum de althæa* is *emollient*, and of a *suppurating* quality, and proper for removing some external pains, and promoting the maturation of some *tumours*, mixed as an ingredient in some suitable *cataplasms*: and

The *unguentum basilicon flavum* is a useful medicine in surgery, proper as a *digestive*, to bring ulcers to discharge a laudable *pus*.

§ 1767. 10. CERATUM, a *cerate*, or *cerecloth*, is an external medicine of a middle consistence between an *ointment* and a *plaster*, being softer than a *plaster*, and harder than an *ointment*; and is compounded of *wax* and *oil*, and of any other ingredients, according to the intention of the prescriber.

§ 1768. This form may serve to various purposes, e. g. to strengthen weak parts: and

To *cicatriz*e wounds and ulcers, &c. to which intention may contribute the *ceratum epuloticum* prescribed in the new *pharmacopoeia*.

§ 1769. It may also be contrived to have a dissolvent quality, as the *ceratum mercuriale* in our new *pharmacopoeia* has.

§ 1770. 11. EMPLASTRUM, an *emplaster*, is an external medicine, more solid, and of a harder consistence than a *cerate*; compounded of the same or like ingredients, only with a greater proportion of *wax*, *resin*, or *pitch*, to render it more *adhesive*; so that when it is spread on linen or leather, and applied to the skin, it sticks closer.

§ 1771. This sort of medicine is of great use in the practice of physic, for various purposes, e. g.

+ to

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to promote a suppuration in some tumours, or to dissolve and disperse others, or to strengthen weak parts.

§ 1772. 12. CATAPLASMA, a *cataplasme*, which is nearly of the consistence of an *electary*; compounded of *roots, herbs, flowers, seeds, fruits, and meal of wheat or oats*, decocted with *water, or wine, or beer, or milk*, and then beat together in a mortar, with *oil, or lard, or butter*. This also may be made without decoction, according to the direction of the prescriber, as it is an extemporaneous medicine.

§ 1773. This form may subserve various intentions: as

1. Applications in this form, composed of suitable ingredients, may profitably be applied to the head, either against a *hot* or a *cold intemperies*, not only of the external membranes and muscles; but also of the *brains*: because *effluvia* from things outwardly applied to the head, will pervade not only through the exterior parts, but through the *cranium*, and the parts contained in it. And therefore *cataplasms* may be so contrived, as to be serviceable against some *apoplexies, lethargies, pains of the head, &c.* and in *paralytic* cases.

§ 1774. 2. This sort of application in this form, composed of proper ingredients, and applied to the wrists, may be of service against *FEVERS, intermitting and continual*; especially for children, and others that will take no *internal* medicines.

§ 1775. 3. Proper and useful applications may this way be made to the *belly*, against *cholics, dropsies, worms* in children, &c.

§ 1776. 4. Cataplasms may be compounded so as to promote the *suppuration* of tumours, &c. also as a remedy against the *relaxation* or *contraction*

traction of any particular part; and for other purposes, &c.

A cataplasm should be of such consistence as to be easily spread upon cloth; but so as not to run through it, or soon to become dry.

It may be prescribed in the following manner, viz.

℞ *Micæ panis albi, in lacte ad mollitiem coctæ* ℞ss. *caparum assatarum, caricarum ā ā* ℥iv. *contundantur in mortario cum aliquantillo olei olivar. et f. massa, cujus uncie duæ (plus vel minus) super pannos linteos duplicatos, extendantur, ut f. cataplasma, affectæ parti tepidè applicandum, et horis sextis vel octavis p. r. n. renovand.*

§ 1777. 13. SINAPISMUS, a *sinapism*, is a sort of a *cataplasm*, though distinguished from it; and has its denomination from the *mustard-seed*, which is always a principal ingredient of it.

§ 1778. This sort of application is intended to excite *heat*, *redness*, and *pain* in the part to which it is applied: as

The *hot* and *acrid* particles of it stimulate and increase the motions of the fluids of all the subjacent vessels, and occasion a greater flux of humours to the part to which it is applied; and consequently a *revulsion* from the other parts of the body.

It may therefore be useful when a *gouty* humour affects the *head*, or *lungs*, or *stomach*, or *bowels*, if applied to the *feet* or *hands*, as I have in divers instances happily experienced.

§ 1779. On which account, when we are called to a patient of a *gouty* habit of body, and who has before had any regular fit of the *GOUT*, and find him afflicted with *headach*, *asthma*, *pains* in the *stomach*, &c. we have reason to apprehend his disorder proceeds from a *gouty* cause, and may call it an *arthritic* case.

§ 1780. If in such cases, besides proper internal medicines, we order a *sinapism* to be applied to the joints of the great toes, it will sometimes occasion a *transflation* of the *gouty* humour to the feet, and contribute much to relieve the more noble and important parts of the body, and thereby secure the life of the patient: though it will excite pain in the parts to which it is applied.

§ 1781. And indeed, when the *gouty* humour is only fluctuating, sometimes felt in one part of the body, and sometimes in another, if there is reason to fear it may be thrown on some of those parts, on whose soundness life very much depends, it appears to me very prudent to advise the application I am speaking of.

§ 1782. This sort of application may be made in the following manner, and applied like a *cataplasma*, viz.

℞ *Pulpæ ficuum*.

Rad. raphani sylvestris āā p. i.

Seminum sinapis, p. iii.

Fermenti acris q. s. *contundantur in mortario et f. sinapismus fortis ad spissitudinem cataplasmatiss ficcioris*; vel,

℞ *Pulpæ ficuum*, *sem. sinapis* āā p. æq. *fermenti* q. s. *contundantur in mortario, pro sinapismo mediocri*; vel,

℞ *Pulpæ ficuum* p. ii. *sem. sinapis* p. i. *pro sinapismo debili consciendo*.

§ 1783. 14. DROPAX, or DROPACISMUS, a *dropacism*; which is a sort of external medicine, compounded of such ingredients, like a *sinapism*, as may excite *motion* and *heat* in the parts to which it shall be applied; and is intended as a remedy for any outward part of the body that happens to be *emaciated*, very *lax*, *cold*, and *moist*.

§ 1784.

§ 1784. It is sometimes ordered in the form of a *plaster*, sometimes in the form of a *cataplasm*, and is composed of warm and stimulating ingredients.

§ 1785. Some distinguish a *dropax* into simple and compound; and describe the simple *dropax* to be made only with *pitch melted with oil*;

And the *compound DROPAX* to be made by adding to the melted *pitch* and *oil*, *pepper* and *pellitory of Spain* powdered; and if the parts are very humid, *sulphur vivum*, or *salt*; or if there should be occasion for *vellicating* the parts, *euphorbium*—in the following manner:

R *Picis* ℥i. *cl. com.* ℥ss. *m. liquentur, et super alutam extendatur mistura pro dropace simplici; vel*

R *Picis* ℥i. *pyrethri, sem. sinapis* ā ā ℥ii. *euphorb.* ℥i. *castor* ℥ss. *cl. oliv. q. s. ut f. dropax vellicans.*

§ 1786. 15. VESICATORIUM, a *vesicatory*, or blistering medicine, when applied to the skin, in any part of the body, produces a copious flux of the lymphatic humours, and elevates and separates the *epidermis* from the *cutis*.

§ 1787. There are three medicines of this sort directed in the New Dispensatory of the College, viz. the *emplastrum vesicatorium*, *unguentum ad vesicatoria*, and *epithema vesicatorium*.

§ 1788. VESICATORIES made with *cantharides* stimulate strongly, raise and quicken the pulse, and consequently increase the vital heat, and occasion the muscular fibres and animal vessels to contract with greater force.

§ 1789. For these reasons, they appear proper in diseases, when the *contractions* of the heart and arteries are feeble and languid; when the pulse is weak, when the vessels are *lax*, and when the vital heat is too little.

§ 1790. And for these reasons also, the application of *vesicatories*, made with *cantharides*, or
any

any other ingredient which stimulates as strongly, must be *improper* when the pulse is too strong and too quick, when the vital heat is excessive, and when the muscular fibres and animal vessels are *rigid*.

These things deserve remembrance.

§ 1791. 16. SACCULI MEDICINALES, or *medicinal bags*, are medicines which were formerly in pretty frequent use.

§ 1792. Dr. BLANCARD, in his description of them, says, “Componantur ex variis simplicibus
“scopo medici convenientibus, eaque, si opus
“fuerit, conteruntur, facculoque, cujus figura
“parti affectæ quadrat, excipiuntur, qui sæpè,
“ne materia in unum locum coacervetur, acu in
“quibusdam locis interfecitur.”

§ 1793. There is a great deal of reason to think that such applications in many cases may be of service to the patients, if the ingredients are rightly chosen, and the manner of application properly made, on the account of the *effluvia* continually flying off from the ingredients.

§ 1794. But I dislike the form of *bags*, though they should be stitched here and there to keep the ingredients from running into an heap in the bottom of them, and prefer the form of a *QUILT*, and should choose to call this sort of topics, *culcitræ medicinales*.

§ 1795. I would order the ingredients to be made into a fine powder, and then quilted, being first spread on cotton, between two pieces of *linen cloth*, or *silks*, cut into a proper size and figure.

This method will keep the powder equally spread through all the parts of the quilt.

§ 1796. An ounce of powder will be sufficient to make a quilt to be worn on the region of the *heart*, and two ounces to make one to be extended over the region of the *stomach*; but a greater quantity

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quantity is necessary, if it be designed to cover the *abdomen*.

§ 1797. As to the figure or shape of those medicated quilts, I would direct one nearly square for the region of the *heart*; an oblong one for the region of the *stomach*, to be worn transversely; and one nearly in the form of an half moon for the region of the *liver*.

§ 1798. This sort of external medicine may be prescribed in the following manner, viz.

R *Campbor. pulverat.*

Corticis eleutheriæ

Myrrhæ āā ʒii.

Ol. menth. gut. iv. m. f. pulvis subtilis; deinde cum pannis linteis, vel sericis et bombyce formetur, ut artis est, culcitra super cordis scrobiculum gestanda contra febrem intermittentem.

§ 1799. 17. INJECTIONES MEDICINALES, *injections*: these are medicinal liquors to be conveyed into some parts of the body, as into the mouth and throat, or into the ears, or into the *uterus vel vagina uteri*, or into the *penis* or *bladder*, or into fistulous *ulcers*, and places in which an *abscess* happened. They are *injected* by the help of some proper *SYRINGE*; on which account the liquors prepared for this kind of service are called *INJECTIONS*. Persons who administer this sort of medicine should be furnished with *syringes* of different sorts.

This class of external medicines is of great use in the practice of physic.

§ 1800. 18. *ISSUES* and *SETONS* likewise should be reckoned among the external remedies.

These are *artificial* ulcers, which should not be made, if we could do without them.

§ 1801. As to *issues*, there are two ways of making them, viz. 1. By *incision*. 2. By *caustick*; but

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but the making them is the business of a surgeon, as is also the making setons.

§ 1802. II. Those *external* medicines which are appropriated to some particular part of the body, must likewise be taken into consideration: the chief of these are the following, viz.

§ 1803. R. CUCUPHA, i. e. *culcitra*, a medicated quilted cap for the head.

This is commonly composed of *aromatic herbs, seeds, flowers, gums, &c.* reduced to a fine powder, and quilted between two pieces of thin cloth put into a proper shape for making a cap, to cover close the whole top of the head.

§ 1804. This sort of remedy is often useful against *catarrhs*, and a *too moist* and *cold intemperies* of the *brain*, and in cases of *melancholy*, &c.

§ 1805. This may be prescribed in the following manner, viz.

R. Rad. calami aromatici,

Fol. rorismarin.

Flor. lavendul. ā ā ʒii.

Nuc. moschatæ ʒi.

Caryophyllorum aromaticorum,

Storac. Benzoin ā ā ʒss. m. f. pulvis qui excipiat^r bombyce, et cum panno linteos, vel serico interfecatur ut f. *culcitra* super caput rasum gestanda.

§ 1806. 2. OXYRRHODINUM, another external medicine, is a mixture of *vinegar* one part, *oil* of *roses* two or three parts, well incorporated. It is to be outwardly applied warm, by means of cloths immersed in it, to the *head, forehead, and temples*; and often changed.

§ 1807. This is said to be of great service against *phrensies*, and against *deliriums* in *ardent fevers*, &c.

§ 1808.

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§ 1808. 3. *FRONTALE*, a *frontale*, or *frontlet*, is another sort of external medicine, contrived so as to be conveniently applied to the forehead, against *pains* of the *head*, attended with *heat* and obstinate *watchfulness*.

This may be compounded with *herbs*, *flowers*, *seeds*, &c. made into a powder, and formed into a quilt of about four fingers breadth broad, and five or six inches long: the quilts then to be sprinkled with vinegar, and applied warm to the forehead in the evening, and taken off in the morning: it may be prescribed in the following manner:

R *Sem. cucumeris* ℥iii.

Sem. papaveris albi ℥i.

Flor. chamamel. ℥ss. *m. f. pulvis.* Cum *bombyce* et *panno linteo* formetur *culcitra*, tum *aceto* adspargatur: sic *f. frontale*, *fronti* sterâ *somni tepidè applicandum*.

§ 1809. Or it may be prepared of the consistence of a *cataplasim*; and be prescribed in the following manner, viz.

R *Conserv. lujule* ℥i.

Confectionis mithridat. ℥i. opt. *misceantur*, dein *inter duos pannos linteos* extendatur *massa*, et *f. frontale*, *ut prius tepidè applicandum*.

§ 1810. 4. A *COLLYRIUM*. This is an external medicine to be applied to the eyes.

The term is derived from two Greek words, viz. *καλέω*, *inhibeo*, to *stop*, or *prevent*; and *ρεε*, *fluxio*; because this sort of application was at first chiefly intended to free the eyes from any morbid flux of humours to them; though by custom the word *collyrium* is now used to signify any liquid medicine contrived to be applied to the eyes for curing any of their diseases.

§ 1811. There are two sorts, viz. 1. One that is very limpid, or a thin liquor, which is by drops
to

to be instilled into the eyes; 2. One (though fluid) of the consistence of *honey*, or a *thin liniment*, wherewith the parts affected may be anointed with a small fine hair-pencil.

§ 1812. The former sort (§ 1811.) may be prescribed in the following manner:

℞ *Tutiæ pptæ.* (vel *lapid. calamin. ppti.*) ℥i. *aq. calcis* ʒvi. *sp. vini rect.* ʒi. vel ʒii. *m. f. collyrium*, *semel, vel bis in die applicandum; vel,*

℞ *Aq. opthalmic. sapphirin.* ʒvi. *aq. calcis* ʒii. *m. f. collyrium cujus guttæ aliquot, scil. duæ, vel tres, oculis instillantur, semel, vel bis in die.*

§ 1813. The other sort (§ 1811.) may be composed of one part of some proper powder, and six parts of *oil*, in this manner:

℞ *Lapid. calamin. ppti.* (vel *tutiæ pptæ.*) ℥i. *ol. olivar.* ʒii. *m. f. collyrium pro oculis, cum penicillo marginibus palpebrarum applicandum.*

§ 1814. 5. GARGARISMUS, five *gargarisma*, a *gargarism*, is a liquid medicine; a spoonful of which is to be taken into the mouth, and agitated a-little in it, and then spit out again without swallowing any of it; or,

It may be held in the mouth, without much moving of it.

§ 1815. This sort of medicine may be compounded of different ingredients, and so contrived as to prove very beneficial in all DISEASES of the *mouth, cheeks, gums, teeth, tongue, and the throat.*

§ 1816. These applications are of great and frequent use in the practice of physic.

§ 1817. The *hot* and the *cold intemperies* of the *mouth, inflammations, tumours, ulcers, paralytic symptoms* in any part of the *mouth, tongue, &c.* may be greatly relieved by this sort of medicine, if composed of suitable ingredients.

§ 1818. By this sort of remedy the secretion of the *salival glands* may be considerably increased

or abated, and catarrhs lessened. In some cases gargarisms may be best used warm, and in others cold.

§ 1819. The manner of prescribing them may be thus:

R *Sal. nitri* (vel *sal. prunell.*) ʒi.

Aq. alexiter simpl. ʒiii.

Aceti.

Syr. de althæa āā ʒi. ss. m. f. *gargarismus*, ad *tonsillas inflammatas*; *cujus cochl.* i. *frequenter in ore paulisper deteneatur, et dein expuatur*; vel,

R *Aluminis rup.* ʒi. coq. cum *aq. q. f.* ad ʒii. et ad *decoctionis finem addendo vini rubri astringentis Hispani* ʒiv.

Tinct. myrrhæ ʒi. f. *gargarismus*, ut prior *utendus, ad ulcera oris, vel linguæ, &c. sananda.*

§ 1820. 6. APOPHLEGMATISMUS, or a *masticatory*, is a medicine to be chewed in the mouth; contrived to attenuate *viscid* humours, and stimulate an excretion of them.

§ 1821. The *radix pyrethri*, i. e. the *pellitory of Spain*, steeped all night in *vinegar*, and chewed the next morning, is a good *masticatory*, as it very strongly attenuates and stimulates a discharge of *viscid* phlegmatic humours from all the *glands*, and the excreting *tubuli*, which convey or empty their contained fluids into the mouth.

§ 1822. It causes great quantities of *rheum*, or *viscid humours*, to be discharged into the mouth; which should be spit out.

And thus may occasion a *revulsion* from the *head*, and be a means of removing not only the pains of it, but other disorders.

§ 1823. The medicine mentioned (§ 1821.) may be called a *simple masticatory*.

§ 1824. But *masticatories* may be compounded of various ingredients, to accommodate them to
some

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some particular occasions, in the following manner, viz.

℞ Rad. pyrethri ʒss.

Piperis albi.

Salis nitri ā ā ʒi. m. f. pulvis: dein cum ceræ q. f. fiant globuli magnitudinis nucis moschatæ minoris, quarum unus in ore masticeatur, ut postlaverit occasio; vel,

℞ Cubebarum, zinziberis ā ā ʒi.

Rad. pyrethri ʒii.

Mastichis ʒi. contendantur, et f. pulvis, cujus ʒi. nodulo includatur, et in ore volutetur, et masticeatur.

§ 1825. But when we find it needful to prescribe this sort of remedy, we must remember to direct the patient to use it in the *morning* fasting, and to keep his head stooping forwards, and carefully to spit out what dissolves of the medicine, with the humours that flow into the mouth: and that he should continue chewing it for a quarter of an hour, or more or less, according to the effect and the occasion; and then wash his mouth with warm water alone, or mixed with *vinegar*, or with wine.

If the case should require it, the *mastication* may be repeated in the evening an hour or two before supper.

§ 1826. This medicine may be of service in many distempers of the head, and parts adjacent to the mouth, &c.

§ 1827. 7. DENTRIFICIUM, a *dentrifice*, is a sort of medicine no way beneath the notice, consideration, and direction of the physician, since the teeth are such useful parts in the mouth, contrived to divide and comminute the solid parts of our aliment, so as to render the digestion of it more easy, after it has been received into the stomach.

§ 1828. The intentions of this sort of medicine are to make and keep the teeth clean, and white; to preserve them from rotting, and to make or keep them firm in their sockets.

§ 1829. Likewise to preserve the gums; and if they are wasting and contracting from the teeth, then to *incarn*, or promote the increase of their substance.

§ 1830. Divers medicines have been and may be contrived for the purposes mentioned.

Water acidulated to a moderate *roughness*, with *spiritus vitrioli*, vel *sulphuris*, will make a lotion wherewith the teeth may be rubbed; and which will contribute much to whiten and preserve them from rotting. Though much use of this sort of remedy is apt to make the teeth *brittle*, and subject to be broken.

§ 1831. A mixture of equal parts of common *water* and *vinegar*, used warm or cold, sometimes makes a good lotion for the teeth, and is very proper to alter, and render *effete*, any *scorbutic salts* brought to the teeth and gums.

And *salt* and *water* makes an excellent lotion for the teeth, to deterge and preserve them from corruption.

§ 1832. *Dentrifices* may be compounded in different forms for the purposes mentioned, e. g.

℞ *Aquæ fluvialis* ℥iv.

Aluminis usti ʒi.

Camphoræ pulveratæ ʒss.

Mellis rosacei ʒii. m. f. *dentrificium* quo frequenter abluatur os ad dentes emundandos: vel,

℞ *Corallii ppti.*

Boli gallici ā ā ʒii.

Mustiches ʒi. m. f. *pulvis dentrificius*, quo dentes fricentur; vel,

℞ *Rad. ireos* ʒii.

Aluminis usti ʒss.

Corallii

Corallii rubri ppti. ʒii. et f. pulvis, deinde cum mellis rosacei q. s. f. dentrificium ad consistentiam linimenti, quo dentes illinantur, et postea os abluatur cum aqua vel vino.

§ 1833. 8. ERRHINUM, or an *errhine*, is a medicine to be snuffed up, or put up the nostrils, principally to attenuate and evacuate *viscid* humours from all the vessels that can be affected by such an application, and to procure a discharge of them from the head.

§ 1834. There are three forms in which *errhines* are compounded, viz. *liquid*, *soft*, and *solid*.

§ 1835. LIQUID ERRHINES are commonly compounded of the *juices* of some proper *herb* mixed with *white wine* in the following manner:

℞ *Succi rutæ, hederæ terrestris* ā ā ʒss. *vini albi* ʒi. *m. f. errhinum in phialâ clausâ reservandum pro usu; cujus aliquantillum tepidè ex volâ manus naribus attrahatur, ter, quaterve in die, per triduum, vel quatrimum.*

Interdum cum hoc errhino (tempore utendi) misceatur pars aceti equalis.

℞ *Succi rad. ireos* ā ā
Hedera terrestris ʒss.
Vini albi ʒi.
Camphoræ ʒss. *m. f. errhinum.*

§ 1836. SOFT ERRHINES may be made by mixing proper powders with *boney* or *oil*; thus,

℞ *Rad. pyrethri* ʒi. *piperis albi* ʒss. *elaterii* gr. ii. *mellis, vel olei, q. s. ut f. errbinum ad linimenti consistentiam.*

§ 1837. SOLID ERRHINES may be compounded of powders suitable to the occasion, to the quantity of ʒii. and then mixed with a sufficient quantity of *turpentine* or *wax* to make a solid mass; out of which may be formed round pellets about an inch long; one of which is to be put up one nostril, leaving the other nostril open for respiration.

ration. They may be prescribed in the following manner :

℞ *Rad. bellebor. alb.* ℥i.

Fol. majoranæ ℥ii.

Campbor. ℥i. *m. f. pulvis* : dein cum *terebinthinæ*, vel *cerae*, q. s. *m. ut fiat massa solidioris consistentiæ pro errhino* ; ex quo formentur *turundæ*, quarum una cum oleo illita indetur.

§ 1838. ERRHINES of different ingredients may be compounded so as to have different qualities, and to be either *evacuants*, *alterants*, or *restoratives*, according to the different occasions that may need the use of them, &c.

§ 1839. 9. PTARMICUM, five STERNUTATORIUM, is an external medicine, contrived to promote *sneezing* ; which medicine, replete with *acrimonious* particles, (when applied) stimulates the *olfactory nerves*, and the *pituitary membrane*, which lines the nostrils ; and procures a copious discharge of pituitous humours from the nose, which are ejected by *sneezing*.

§ 1840. This sort of medicines is generally ordered in the form of a *liquid*, or of a *powder*, and may be prescribed in the following manner :

℞ *Turpethi mineralis* gr. viii.

R. glycyrrhizæ.

Fol. majoranæ ā ā ʒss.

Ol. rorismarini gut. ii. *m. f. pulvis sternutatorius*, cujus grana aliquot naribus insufflentur bora una ante decubitum ; vel

℞ *Fol. assarabaccæ, nicotianæ, nucis moschatæ* ā ā ℥i. *m. f. pulvis ptarmicus ut prior utendus.*

§ 1841. A STERNUTATORY in a liquid form may be prescribed in the following manner, viz.

℞ *Succ. beder. terrestr. depurati* ʒss.

Sal. volatil. oleos. ʒi. *sp. rorismarin.* gut. 40. *m. f. sternutatorium mite.*

§ 1842.

§ 1842. 10. SUFFIMENTUM, *vel* SUFFITUS: by which terms I mean an external medicine compounded of *odoriferous* ingredients in the form of a *powder*, or *balls*, for *fumigation*; which cast on live coals, or a red hot iron, emit, and diffuse in the air grateful fumes.

§ 1843. The use of this sort of medicine may contribute much to alter and purify a morbid air in houses, in the time of any contagious distemper.

§ 1844. *Suffiments*, or *fumigations*, may be contrived for the relief of persons afflicted with *catarrhs*, &c.

And some have used *mercurial* suffiments for raising a salivation.

§ 1845. 11. SUPPOSITORIUM (a *supponendo*) a *suppository*, is an external medicine, made stiff, round, and of the length of one's middle finger, for adult persons; and of one's little finger for children of fourteen or fifteen years old; and less for lesser children, to be put up the ANUS.

§ 1846. This is a sort of medicine of great and frequent use in the practice of physic; at least there is frequent occasion for it in the course of practice.

§ 1847. This kind of application is often needful for infants; and for these a *suppository* may be made of the *stalk* or *root* of mallows, or of marsh mallows, divested of the outward rind or bark, which is to be put up the fundament, held there a little while, and then gently moved about.

§ 1848. If this should be ineffectual, another such *suppository* may be anointed with *oil*, or rubbed over with *butter*, and sprinkled with a little *salt powdered*, and so put up.

1849. This method is to be used, when an infant is costive, and a glyster cannot be conveniently given.

1850. For adult persons this sort of remedy may be so compounded, as to be very serviceable in many cases; but the most frequent intention is to irritate the *rectum*, to discharge its contained *fæces*.

For this purpose, we may prescribe in one or other of the following forms, or such like, *viz.*

R *Salis vulgaris (vel aluminis petralis) pulverati* ℥i, *vel* ℥iſs. *mellis ad eam spissitudinem cocti, ut digitos non amplius inquinet* ℥i. m. et f. *suppositoria duo, quorum unum cum oleo illitum indetur ad alvum sollicitandam; vel,*

R *Agarici, colocynthis* ā ā ʒſs.

Spec. Hieræ, salis gemmæ ā ā ʒi.

Mellis ad debitam spissitudinem cocti q. s. m. f. suppositorium.

1851. These medicines (§ 1849) may be advised for persons who refuse to admit of glysters; and may be put up by themselves.

1852. They are useful likewise in cases where glysters are slow in their operation; as in the *choleric*: and useful when purging medicines taken at the mouth do not operate.

1853. And they are *necessary* when indurated *fæces* so stuff the *rectum*, that a glyster cannot be injected; and useful when the *sphincter ani* wants a *stimulus*.

§ 1854. They are also useful to make a *revulsion* from the *head, lungs, heart*, and other upper parts of the body, when a *revulsion* from them is wanted; particularly in all *cold* and *sleepy* disorders of the head.

§ 1855. There are other intentions which may be obtained by *suppositories* (if compounded of suitable ingredients) *viz.* 1. to open the *hemorrhoidal*

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rboidal veins, and bring them to bleed, when they are tumified, and painful, and cannot be discuffed.

2. To stop the *hæmorrhoidal* flux, when it is excessive.

3. To take off a *tenesmus*; to remove a laxity of the *sphincter ani*; and any *paralytic* disorders of it.

§ 1856. 12. PESSARIUM, a *Pessary*, is a medicine made in the form and manner of a *suppository*, but thicker, to be put up the *vagina uteri*, as an external remedy against various disorders of it, and of the *uterus* itself.

§ 1857. Medicines may be contrived in this form, either to procure the flux of the *menfes*, or to restrain it, when immoderate, and to stop *floodings*.

Likewise against *inflammations*, *pains*, *tumours*, and *ulcers*, which may happen in those parts.

And also against the *procidentia uteri*, &c.

§ 1858. It does not appear needful or proper to send a prescription of such a medicine to the public shops; but the physician may in private, to the patient, or her nurse, direct in the following manner:

℞ *Myrrhæ pulveratæ, seminum anisi in pollinem redactorum* āā ʒss. *mellis ad debitam spissitudinem cocti* q. s. *et f. pessaria duo, dein cum panno sericeo albo obvolvantur, quorum unum cum oleo illitum, et filo coxo alligatum (ut extrahi possit pro libitu, quod fit post ii. vel iii. vel iv. horas) indatur vespertino tempore.*

§ 1859. 13. ENEMA, five *clyster*, vel *clysterium*, a *clyster*, is a liquid medicine, to be injected at the *anus* with a clyster-pipe and bladder, or by a proper *syringe*.

§ 1860. The several sorts of remedies may be conveyed this way into the body, viz. *evacuants*, *alterants*, and *restoratives*.

§ 1861. And in respect to this kind of application, we are to consider, on every occasion for it, three things; 1. The intention we are to pursue in advising it. 2. What are the proper ingredients wherewith the clyster should be compounded. 3. The quantity of it, &c.

END of LECTURE XIV.

LECTURE XV.

On the materials of the medical instruments. I. On EVACUANTS of the sanguineous and lymphatic fluids; and, 1. of Emetics. 2. Cathartics.

§ 1862. **T**HE materials of the medical instruments I shall distribute into three classes, *namely,*

1. *Evacuants*, 2. *Alterants*, and 3. *Restoratives*.

§ 1863. 1. EVACUANTS. As there are three general sorts of fluids in every human living body, capable of exceeding in quantity, *namely*, the *sanguineous*, *lymphatic* and *nervous*, so it is necessary to know by what means the quantity of each of them may be most advantageously lessened.

§ 1864. Evacuants therefore I divide into three classes; *viz.*

1. Those by which the quantity of red blood may be diminished;

2. Those that may abate the quantity of lymph: and,

3. Those by which the quantity of the nervous fluid may be rendered less. And

§ 1865. 1. Of those by which the *quantity of red blood may be lessened*.

§ 1866. The instruments for this purpose are the *lancet*, the *scarificator* with *cupping-glasses*, and *leaches*.

§ 1867. The LANCET is most commonly used; and in most cases the quantity of blood may well enough be lessened by opening a vein with it.

§ 1868. But as to taking away blood by CUPPING, there is a difference; for in this operation the three general series of the animal vessels are all cut, *viz.* the sanguine, lymphatic, and nervous

tubuli; so that there is some evacuation from each series within the circle made by the pressure of the cupping-glasses, after the scarificator has been applied. But the principal evacuation is from the sanguine arteries; for the pressure of the cupping-glasses, while they adhere to the body, increases the motion of the fluids, through the other vessels, to the orifices made by the scarificator; but the pressure doth not hinder the blood from being propelled through the sanguine arteries to the incisions; the strong contractions of the left ventricle of the heart forcing on the motion of the blood to the orifices. If it was not so, blood could not be taken away by cupping.

§ 1869. This way of bleeding therefore is a sort of arteriotomy; and it is not only safe, but necessary for the relief of people with too much blood; especially under fevers attended with delirium, stupors, and such symptoms. And I have by experience found, that taking away six or eight ounces by cupping on the neck and shoulders has been more useful for the relief of some patients, than taking away a larger quantity by the lancet would have been.

§ 1870. As to BLEEDING BY LEACHES, I once thought it to be an evacuation of arterial blood: But when I considered, that the largest stream of blood that flows from a wound made by the bite of a leach is an equal stream (not *per saltum*) and considered, that the coats of the arteries are much thicker than those of the veins, I concluded, that a leach did not bite through any sanguine artery.

§ 1871. So that I think bleeding by leaches is taking away blood from the sanguine veins: Yet this way is sometimes most adviseable; for instance, it is so, when the vein lies deep, and we have reason to think some artery or tendon lies near, which may render the use of the lancet dangerous.

§ 1872.

§ 1872. It is so also, when it is most proper to take away blood from the temples, and behind the ears, as in some disorders of the head.

And when we are to take away blood from plethoric infants, especially under fevers, and in a convulsion fit.

§ 1873. It is requisite, that such as are to practise physic should understand how to manage taking blood from a patient this way; therefore I shall observe a few things relating to it; as,

If the leaches do not readily fix to the places where we would have them applied, we should order those places to be wetted with milk, *per se*, or sweetened with sugar.

If you have not leaches enough, or would have those that are applied suck more than they naturally can, let a little of their tails be snipped off with scissars; and the blood, which would otherwise fill them to satiety, will run through them; and they will keep sucking on, if they are well fastened: yet a single leach can scarce be made, even by this expedient, to suck half an ounce.

When we would have the leaches loose their hold, and fall off, let salt be rubbed upon them; which, when they have dropped off, will also cause them to disgorge the blood they have sucked in: This is proper, if we want to know the quality of the blood.

§ 1874. If blood flows from the wounds made by the leaches longer than is thought proper (which is often the case) the blood should be wiped away. Lint wetted with spirits should also be applied to the bleeding places, or pledgets armed with a mixture of finely powdered salt, or chalk, and spirits of wine.

§ 1875. I cannot say, that taking away blood is always necessary, when there is an excess in the quantity of it; because increasing the exercise, and the labours

labours of the body, and diminishing the quantity of sleep, and food, will in a little time remove the excess.

§ 1876. But when the body is under any disease, produced by or depending on too great a quantity of blood, phlebotomy is the proper and needful remedy, and ought not to be delayed.

§ 1877. When we find it necessary to order bleeding, we must be very careful that no more blood be taken away than is necessary to reduce the quantity to a healthful standard.

§ 1878. It may be useful to observe to what degree we may reasonably imagine the exceeding quantity of blood may arise in plethoric bodies; because the knowledge of this will guide us in determining how many ounces should be taken away.

§ 1879. If we suppose a man, who weighs 160 pounds, to have ten pints of current blood (which is a much larger proportion of blood, bulk for bulk, and weight for weight, than is in horses, even to the amount of an eighth part) for his healthful standard, that it is increased to the quantity of eleven pints; he must have a tenth part of current blood more than he should have; *i. e.* as much blood as a man who weighs 176 pounds, and who is not plethoric, ought to have.

§ 1880. Suppose again a man who weighs 160 pounds to have twelve pounds of current blood: it exceeds two pints; and he has a fifth part of current blood more than he ought to have, and as much as a man who weighs 192 pounds, and is not plethoric. A vast excess! and which I think never happens.

§ 1881. The consideration of these things should make us cautious as to the quantity of blood we ought to take from any patient.

§ 1882. And let it be observed, that if a pint of blood is taken away from a man weighing 160 pounds,

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pounds, who had an excess of only one pint, the evacuation reduces the quantity of blood to the healthful standard, and is so far beneficial; but it cannot lessen the quantity of morbid humours (supposing them to be diffused only in the current blood) more than an eleventh part.

§ 1883. But if we take away a pint of blood from a man weighing 160 pounds, who had not too much blood, we then render the quantity of his current blood a tenth part less than it ought to be; and in the same proportion we diminish all the nutritious, balsamic, and useful parts of his blood, and his vital strength; and cannot by this evacuation lessen the quantity of any morbid particles, diffused only in the blood, more than one tenth part: But what will such a diminution avail, when nine parts in ten of the morbid particles are left circulating in the blood, to the whole mass of which they bear the same proportion that they did before, and are transmuting more parts of it into their own nature and quality?

§ 1884. Dr. Keil, whose examinations are very critical, and whose experiments are very exact, computes, that in a human body weighing 160 pounds, the fluids would amount to 100 pounds, if the whole body was composed of arteries; and to 150 pounds, if the whole body was composed of vessels, whose coats had the same proportion to their cavities as the veins have to theirs: so that if the cause of the disease be some wrong quality diffused through the whole mass of fluids, then taking away a pound of blood will not diminish the morbid quality more than one hundredth part.

1885. The consideration of these things may convince us how little is to be expected from phlebotomy for the cure of diseases in persons not plethoric.

§ 1886.

§ 1886. I think it may be of great use, before I enter upon the next class of Evacuants, to take notice of some propositions relating to the taking away of blood from sick people; and as I apprehend their welfare very much concerned in the observance of them, I most earnestly recommend them to impartial consideration.

§ 1887. *Prop. 1.* That it is generally improper to take away blood from persons whose fibres and vessels are lax, and whose flesh is loose and flabby.

For it will certainly diminish the contractile force of their vessels, increase their laxity, and the softness of the flesh, and debilitate the actions of the vital organs, and consequently can only contribute to bring on morbid effects.

§ 1888. Dr. *Keil* (speaking of the animal fibres) very judiciously tells us, he thought those who advised bleeding, whether in acute or chronic diseases, ought carefully to consider the strength and the elastic force of the animal fibres; that it was easy to give a reason of their becoming within a few hours, by such evacuations, remarkably weaker; and that taking away a large quantity of blood was never without danger.

§ 1889. *Prop. 2.* That fat people suffer more than lean by an improper bleeding: the reasons are pretty manifest.

1. Because their blood abounds more with oily particles; their vessels are more lax; the contractile force of them less; and so they are less able to carry on with vigour the circulation of the fluids.

2. Because in fat bodies there needs rather greater force in the actions of the heart, to propel the blood through the extremities of the arteries into the veins: consequently the strength of the actions of the heart ought by no means to be diminished.

3. Because, weight for weight, fat people have less blood than lean; therefore fat people should never be bled without some urgent necessity.

§ 1890. *Prop. 3.* That if, in consequence of taking away blood, the patient finds his strength sensibly abated, the bleeding has done him harm, and must not be repeated; for the diminution of his strength is sufficient to prove the evacuation was improper for him.

§ 1891. *Prop. 4.* That if, in consequence of taking away blood, the pulse becomes weaker than in time of health, the bleeding has done harm, and must not be repeated; for the sinking of the force of the pulse shews the vital strength has been too much diminished by the evacuation.

§ 1892. *Prop. 5.* That if, in consequence of taking away blood, the pulse becomes quicker than in health, the bleeding has done harm, and must not be repeated; for the augmented celerity of the pulse, produced by diminishing the quantity of the blood, shews, that the evacuation has occasioned an obstructed, or difficult passing of the blood through the capillary sanguine arteries; and that it will grow viscid, if not prevented by suitable remedies.

Hence it appears, that we ought to be well acquainted with the pulse, and the strength of our patient, before we advise taking blood from him; and ought critically to observe the alterations that may ensue upon bleeding, in regard to the patient's strength, and his pulse, as to its force, and quickness of motion.

§ 1893. *Prop. 6.* If, in consequence of taking away blood, the body becomes *too cool*; that is, cooler than in time of health, the bleeding has done harm, and must not be repeated; for this diminution of vital heat shews, that the quantity of blood has been made less than it ought to be; and that the red globules, by the friction of which vital

heat is greatly maintained, have been too much diminished.

§ 1894. *Prop.* 7. The more watery and poor the blood is, the more improper it is to take blood away; consequently, bleeding persons in dropsies, or in any other disease attended with a poor blood, must be very improper and pernicious; for Dr. *Hales*, in his experiments of infusing water into the blood vessels of living dogs, observed, that they constantly died, when the blood became greatly diluted with water; so that merely keeping arteries full of any fluid, will not support life.

§ 1895. *Prop.* 8. Taking away blood from bodies habitually too cool, or chilly, is improper. (§. 1893.)

§ 1896. 2. I now come to treat of the class of evacuants, by which the quantity of lymph may be diminished.

The lymph may by various ways be excreted from the body; for instance, from the emissary ducts of lymphatic glandules; and from the extremities of the lymphatic arteries terminating in the exterior superficies of the body, and in the interior superficies of the mouth, *oesophagus*, stomach, intestines; and by the excretory *tubuli* of the kidneys.

The lymphatic humours may also be evacuated by the salivary glands, which empty their fluids into the mouth; and by the mucous glandules, situated in the pituitary membrane of the nostrils.

§ 1897. The *principal evacuants* by which the quantity of lymph may be diminished, and lymphatic humours evacuated from the body, are these following:

§ 1898. 1. EMETICS, medicines forcing evacuations by vomiting.

§ 1899. 2. CATHARTICS, that increase the evacuations through the intestines, and the number of the stools.

§ 1900. 3. DIURETICS; which increase the quantity of urine.

§ 1901. 4. SUDORIFICS; that procure sweats.

§ 1902. 5. EPISPARTICS, or VESICATORIES; blistering plaisters, unguents, and cataplasms, that separate the epidermis from the cutis, and occasion an evacuation of lymph, and indeed of the nervous fluid.

§ 1203. 6. STERNUTATORIES; that provoke sneezing, and force a discharge of lymph, or *mucus*, from the nostrils.

§ 1904. 7. EXPECTORANTS; which procure an evacuation of lymph from the lungs by spitting.

§ 1905. 8. SALIVANTS; those medicines that bring on a spitting, by procuring a more copious evacuation of humours through the salivary glands into the mouth. This sort comprehends proper gargisims, mastacatories, &c.

§ 1906. 9. FONTANELS, ISSUES, or SETONS; which, as is above observed, are artificial ulcers designed to procure a continual discharge of humours from the extremities of the sanguine and lymphatic arteries, and the nervous *tubuli*.

§ 1907. Thus it appears, there is a large variety of medical instruments to diminish the excessive quantity of lymph.—These I shall consider in the order in which they have been mentioned.

§ 1908. 1. EMETICS; and the following medicines, may be a sufficient sortment for procuring an evacuation from the stomach upwards.

Salt of vitriol; which is a gentle emetic; and given to children, from two, to six, eight, or ten grains; to adult people, from one scruple, to a drachm.

But as to children, I should not care to advise vomiting medicines to such as will not be so much under government as to drink what may be directed.

Radix ipecacuan. This is a good medicine, and its dose for adult people is from one scruple to two or more. This root in small doses is excellent against dysenteries, and to strengthen all the muscular fibres and vessels of the stomach and intestines. It may be given in substance, in infusion, and in tincture.

§ 1909. It is not always necessary to order patients to drink largely with a vomit; for a person may take two scruples of *radix ipecacuan.* or more, and drink but a quart, or three pints, and may vomit too much.

§ 1910. I very seldom have prescribed vomiting medicines; and not at all for many years. Indeed, when children have eaten *to a great excess*, and have gorged their stomachs, and become very sick, I advise the tea-kettle of water to be set on the fire, and to give the children plentifully warm water, which helps them to vomit freely, to empty their stomachs, and thereby prevents a fever, and preserves them from further sickness.

§ 1911. Let it be observed, before I leave this subject, that vomiting medicines produce an alterate or reciprocal *derivation*, or *revulsion*; a derivation, while there is a quicker flow of fluids to and through those vessels to which the derivation is made; and a revulsion, when there is a quicker than usual return of the blood and humour from those vessels which are the seat of the revulsion.

§ 1912. Thus, during the sensation of loathing and sickness in the stomach, there is a revulsion from all the remote parts of the body; the hands and feet grow cold; the countenance turns pale: After the sickness ceases, and the vomiting motions are over, the person will grow alert again, and have a brisker flow of spirits.

§ 1913. There is a violent concussion of all the parts of the body in vomiting; and what benefit

benefit is obtained is produced by those concussions, which force the fluids into a brisker motion through the minutest vessels and glands in the body.

§ 1914. Beneficial vomits operate like a strong exercise; sometimes advantageously, but not always safely.

§ 1915. Vomiting is very improper; and may be pernicious in plethoric bodies; as the violent concussions produced by such medicines may possibly occasion an apoplexy, or a rupture of some vessels, and various other ill effects.

§ 1916. Vomiting medicines should not be prescribed for persons under eruptive fevers, as the measles, small-pox, the miliary fever; because of the revulsion they make from the superficies of the body *ad intra*.

§ 1917. Dr. FRIEND disapproved of vomits, while the variolous pustules were maturing.

It throws nature into the utmost confusion, when the morbid humours are excreting to the superficies of the body, to give a remedy forcing their return *ad intra*.

§ 1918. Vomits ought not to be advised for weak bodies, that have been long afflicted with obstructions; for

A confirmation of such obstructions may be the effects, and likewise the rupture of some vessels.

§ 1919. They are not good in fevers attended with an inflammation of any part, as in the pleurisy; because the natural effect will be, the increase of the fever, and the inflammation; and consequently, the danger of the patient.

§ 1920. Vomits are bad in chronical distempers; because in them the morbid quality has been long subsisting in the blood, and the obstructions of long continuance.

§ 1921. The giving a vomit is a proper way sometimes of making evacuations in the *belly-dropfy*, after the membranes of the intestines have been cleansed from obstructing matter by suitable remedies, and the pores of the membranes of the bowels have been rendered open; as the action of vomiting may occasion the water extravasated into the cavity of the *abdomen*, to pervade the intestines, and come away by urine and stool.

§ 1922. 2. Another sort of evacuants for diminishing the quantity of lymph, are CATHARTICS, which increase the evacuations through the intestines, and thereby the number of stools. These may be divided,

§ 1923. 1. Into those that may be taken at the mouth, and pass down into the stomach.

2. And those that may be injected by glysters into the *rectum*, put up in the form of suppositories.

§ 1924. Cathartics are simple or compound; the chief of the simple are,

Rosæ damascenæ, *damask roses*; the flowers make a gentle and safe purge for infants, from half a drachm to a whole one, in infusion, according to the age and size of the patient. There is a syrup of these roses in the new *pharmacopæia*; the dose of which may be from two drachms to ten or more for children, and to two ounces for adult people.

Flores violarum, *the flowers of violets*; these make a gentle purge for children, from two drachms to six.

Folia senæ, *the common sena of the shops*; there is hardly any cathartic so frequently used as this; but it will gripe much, and work roughly, in some constitutions. Its dose in powder is from less quantities to half a drachm.

*
Prunæ,

Prunæ, prunes; are moderately cooling and laxative, much used in private families: sometimes boiled by themselves, sometimes with senna.

Tamarindi, Tamarinds; are pleasant in taste, acid and cooling, and especially proper against inspissated blood, and feverish heats, and in cases attended with costiveness.

Manna; this is well known, and deservedly in much use, not only for children, but for adult people. It is a very gentle purge, and, like sugar, seems to be a vegetable salt, and is a proper alterative or dissolvent of viscid humours, as well as an evacuant, when given in sufficient quantities. Its dose for young children, according to their age, may be from one to four drachms, and for adult people to two ounces.

Aloes; commonly reckoned among mild cathartics, and, in proportion to its dose, is very slow in operation: There are two sorts; one for human bodies; the other, being very strong, is generally given to horses: It is extremely bitter, and is a proper remedy against worms, and loss of appetite. As a purge, it may be taken in pills, or dissolved in water, from fifteen grains to half a drachm, for adult persons. As an alterative, in some chronical diseases, it may be taken five or six grains for a dose, many days together, in watery, cold, and corpulent habits of body; but it is very improper for persons of a sanguine or choleric constitution, whose vessels are rigid.

§ 1925. *Rhabarbarum, rhubarb*: This root is well known, and of great use in medicines, from four grains to two scruples, according to the patient's age and size; and in decoctions, from one drachm to two and more.

These which have been mentioned are gentle cathartics.

§ 1926. The following are *strong cathartics*:

Turpethum, turbith; its dose in powder is from one scruple to two or more; and in infusion from one drachm to two or three. It is seldom used alone.

Folia lini cathartici, mountain flax; this is both an alterative and a purgative, and contributes pretty much to destroy any viscid quality in the animal fluids, and to stimulate the evacuations by the intestines. The decoction or infusion is commonly used. This is a pretty rough medicine in its operation, and but little used, except by some country people, where its virtues are handed down by tradition from one generation to another; and has been very effectual in some rheumatic disorders. I have known several who have used it with success.

Fructus colocynthidis, bitter apple; this is extremely bitter, and very violent in its operation; and I think ought not to be given alone: this makes one half of the *mass. pil. ex colocynth. simpl.* It is also an ingredient in the *p. ex colocynth. c. al.* But in this composition it is only one-fifth part of the powders that are formed into that mass of pills.

Gambogia, gamboge; is exceeding violent in its operation by vomit and stool; therefore is a drug I leave out of my materia medica. I do not know any intention in the practice of physic that in the nature of things is attainable, but may be attained without such rugged medicines; therefore I shall not recommend such to the practice of any.

Elaeterium; which is the inspissated juice of the wild cucumber, a most violent evacuant of water out of the body; on account of which quality, some have prescribed it in some stubborn dropsies, from two to three, four, or five grains. Doctor Quincey

Quincey says, that, with all the caution imaginable, it will be so violent, that few care to trust their reputation to its prescriptions, unless such empirics as have none to lose.

§ 1927. As to my own manner of practice, it is rarely I use any cathartics for dropfies.

Scammonium, *scammony*; this is the inspissated juice of a root called scammony. It has an alterative and purgative quality; and in chronical distempers, produced by a viscid or glutinous quality, in composition with other drugs, it will make a suitable remedy, from two grains to ten; but should not be ordered alone.

Radix bellebori nigri, *black bellebore root*; this is a very useful drug in the practice of physic, well deserving of regard: It is like to be of great service in many chronical distempers, in its purgative quality: Its dose may be from ten grains to half a drachm, or more; but if in a diminished dose, that will not produce stools, it is an excellent alterative, as it attenuates the blood, renders the course of it easy through the minutest capillary sanguine arteries, and is very proper to procure the menses, by removing obstructions; and will take off nervous symptoms, both in hysterical and hypochondriacal patients; and it is a good ingredient in medicines for melancholy.

Radix jalapii, *jalap*; this is a root somewhat like that of our briony, much used, and well known in physic. Its dose is from one scruple to two or three.

§ 1928. There are likewise *Cathartic salts*, which are of great use in physic; as,

Cream of tartar; which, as a purgative, may be given from half an ounce to six or eight drachms.

Tartarus alone, white, and red, or brown, has a purgative quality, if given to six or eight drachms.

Sal

Sal polychrestum; which may be taken to half an ounce, or an ounce.

Sal mirabile glauberi; from half an ounce to an ounce, or more.

Sal catharticum amarum, vulgarly called *Epsom salts*; given from two to ten drachms. This makes a very good purge.

N. 3. All purging salts should be well diluted; and the effects of them are not certain.

As for the quantity of these last, I should advise an ounce to be dissolved in a pint of water; and a quarter of a pint to be taken at a draught, till all be taken, if all be needful; for sometimes six drachms will work sufficiently: And I never covet a great many stools, unless in some particular cases; but the stools should be in such quantity, as not to lessen the quantity of insensible perspiration.

These are simple cathartics.

§ 1929. There is a great variety of compound cathartics, numbers of which our college mentions.

§ 1930. Purging glisters and suppositories may be variously compounded of the drugs that have been mentioned.

§ 1931. I think a sufficient number of purging medicines have been mentioned; which are one sort of evacuants, proper when the lymphatic humours exceed in quantity.

§ 1932. But though they answer this purpose, it cannot be truly said they are always necessary; because the excess of the fluid we are speaking of, may be taken away by other sorts of evacuants, as diuretics and sudorifics; and that in a short space of time.

§ 1933. I shall now observe some things in relation to the exhibition of purging medicines,
which

which I apprehend deserve to be considered ; particularly,

That, during the operation of a purge, a greater quantity of fluid flows into the cavities of the stomach and intestines from the glandules, and secretory ducts situated in their membranes ; and that the operation of a purge, if not overdosed, generally terminates within about eight hours.

Therefore, as a greater quantity of lymph, in proportion, will be derived from the blood flowing through the mesenteric arteries, by this means the quantity of lymph will be proportionably diminished.

§ 1934. Thus, if a pint of it more than usual, be excreted this way (§ 1933.) the quantity of lymph in the body is one pint less than it was ; and so according to the quantity evacuated this way, will be the diminution of the quantity of lymph.

§ 1935. During the operation of a purge, as there is a greater, so there is a quicker flux of fluid through the *celiac* and *mesenteric* sanguine arteries, and through the lymphatic arteries that arise out of them ; which quicker and augmented flux of fluid may be called a derivation, as it occasions a greater flow of fluid to those parts than was before the exhibition of the purge.

§ 1936. This therefore may be a means of removing many obstructions, if such were in the vessels through which the derivation is produced. And it shews, that purging medicines, though not necessary to diminish the quantity of lymph, may be of very great use in divers cases : For,

§ 1937. As there is a greater and quicker flow of fluids through the vessels terminating in the membranes of the stomach and intestines ; so that quicker flow of fluids to the stomach and intestines occasions a lesser flow of blood to the head, limbs, and

and the whole exterior superficies of the body : And this effect of a purge may be called a revulsion from all those parts ; which revulsion is greater or lesser, as the quantity evacuated through the intestinal passages is more or less.

§ 1938. Therefore, the giving cathartic medicines is very improper, and like to be hurtful in all distempers wherein revulsion from the exterior superficies of the body is improper and unsafe ; consequently, it is improper to prescribe any purging medicines for patients under any eruptive fevers, while such eruptions subsist ; as it likewise is to prescribe any purging medicines for patients under any cutaneous diseases ; as the revulsion made by a cathartic will produce a return into the blood of many morbid particles, which had been excreted from the blood to the extreme parts of the subcutaneous vessels, and indeed a return of most of them that are minute enough to pass back to the absorbent vessels ; which may endanger the life of the patient, at least bring on many inconveniences.

§ 1939. It is also improper to order a purging medicine in all diseases under which the blood is too spissid, has too small a quantity of serum, or a viscid or glutinous quality ; because the operation of a purge, by carrying away the thinnest parts of the lymph, and diminishing the quantity of it, will proportionally thicken the remaining fluids.

§ 1940. When purging is proper, on account of an excess in the quantity of lymph, it is needful for a physician to examine and find out, whether there be any viscid or glutinous quality subsisting in the animal fluids, before he prescribes this sort of remedy ; because, if there be, it is necessary first, by attenuating alteratives, to remove that quality ; and, having accomplished this point, he
may

may order a purge, which then will be attended with greater advantage, and be secure from doing harm.

§ 1941. In the beginning of fevers, or indeed before their declination, generally speaking, no purging medicines should be advised, because all fevers depend on some morbid quality or other; and alterants, not evacuants, are the only proper remedies to remove the cause.

§ 1942. Besides, the purging of patients under fevers, instead of altering or removing the morbid quality, will occasion a waste of useful fluids, and abate the vital strength; events that ought to be prevented.

§ 1943. Purging remedies are often necessary and useful in diseases of the head, and of the upper parts of the body, when a revulsion from those parts is a necessary means to relieve the head from its morbid symptoms.

END of LECTURE XV.

LECTURE XVI.

On the materials of the medical instruments, viz. I. On EVACUANTS of the sanguineous and lymphatic fluids; and, 3. Of Diuretics. 4. Sudorifics. 5. Epispartics, or Vescicatories. 6. Sternutatories. 7. Expectorants. 8. Salivants. 9. Fontanels, or Issues. II. On EVACUANTS of the Nervous Fluids.

II. *On various ALTERANTS.*

§ 1944. **T**HE next sort of *Evacuants* for diminishing the quantity of the *lymphatic fluid*, are,

III. **DIURETICS**, or medicines which increase the quantity of the urine.

§ 1945. Here I would observe to you, that excretion by the kidneys is one of the *most important ways* by which *excrementitious, superfluous, and morbid* humours are, and may be discharged from the *arterial blood*; thirty ounces or more of fluid being commonly evacuated this way *daily*, or every twenty-four hours. And often much more under diseases, either *spontaneously*, or by the assistance of proper *diuretics*.

Whence we may conclude, that generally when there is occasion to diminish the quantity of the *lymphatic fluid*, or to promote excretion from the blood of morbid humours, it is most adviseable to promote evacuation through the excretory *tubuli* of the kidneys.

§ 1946. The *variations* which may happen in the *quantity* of the urine are these: It may either exceed the standard quantity of health; or it may be deficient.

The

The effects therefore both of its *excess*, and of its *deficiency*, are to be considered.

§ 1947. If this evacuation *exceeds* in quantity, and continues excessive, it will render the *blood* and *lymph* too thick, and *viscid*, or *glutinous*; and contribute to the production of those distempers which naturally arise from such *morbid* qualities of the animal fluids.

§ 1948. If this evacuation by urine is *deficient*, the quantity of the fluids remaining in the body will become excessive, except some other excretion spontaneously, or by the assistance of medicines, becomes proportionally augmented, &c.

§ 1949. I shall recommend to your thoughts some particulars in relation to the increasing of the urine, which I apprehend deserve your consideration and remembrance; e. g.

1. That to endeavour an augmentation of the evacuation by URINE, while morbid humours are critically discharging through the *cuticular* vents, is very *improper*, on the account of its tendency to make a *revulsion* from the *superficies* of the body.

2. That to endeavour the increasing the quantity of urine, when the blood is *too thick*, is likewise improper. Because diminishing the quantity of the serous part of the blood, will render that fluid still thicker.

3. That it is also *improper* to augment the evacuation by urine, when the quantity of lymph does not exceed the standard of health; because the doing so will render an important fluid *deficient* in its quantity, and consequently insufficient for due secretions, and for a sufficient dilution of the blood. And this shews, that increasing the quantity of the urine by *diuretics*, is much more improper when the quantity of the lymph is too little.

4. That

4. That it is very proper to promote evacuations by urine, when the insensible perspiration is obstructed and diminished. And therefore it is proper in *catarrhus* disorders, colds, coughs, &c.

5. That it is very proper to increase the quantity of urine, when the *serum* of the blood and the *lymph* exceed the healthy quantity, on which account it is proper in all *hydropical*, *anasarcous*, *leucoplegmatic* cases, and whenever the blood is too thin, poor, and watery, &c.

§ 1950. HAVING observed these particulars, be pleased to take notice, that, in order to obtain an increase of the quantity of the urine, two things must be endeavoured, viz.

1. To enlarge the diameters of the excretory *tubuli* of the kidneys, which may be accomplished by *emollient*, *mucilaginous*, and *oleaginous* medicines.

2. To attenuate the animal fluids, and to remove any *viscid* or *glutinous* quality from them, and to comminute such particles as are too big to pass through the excretory ducts.

§ 1951. In general, the *alkaline*, *lixivious*, *nitrous*, and *acid* SALTS, and such *roots*, *herbs*, *seeds*, *fruits*, and *insects*, &c. as partake of them, may, with proper management, contribute much to increase the quantity of the urine.

§ 1952. But it is *not* a matter of indifference what sort of *diuretics* are advised, &c.

There is a great variety of them, which might be mentioned to you. But I shall only take notice of some of them, which in my judgment have the preference; e. g.

Radix et folia petroselinæ, *Parsley*.

Folia theæ viridis, *green tea*.

Radix et folia althææ, *marsh-mallows*.

Malvæ, *mallows*.

Rad. et folia althææ.

———— malvæ.

Both

LECT. XVI. *On various Sorts of Remedies.* 65

Both sorts of mallows have a great deal of penetrating salt enveloped in a mucilaginous juice.

Radices Asparagi, *asparagus.*

Graminis, *grass.*

Raparum, *turnips.*

Raphani hortensis, *garden horse-radish.*
sylvestris, *wild horse-radish.*

Parcira brava.

Sal Nitrum.

Prunellæ.

Polychrestum.

Ammoniacum crudum.

Tartarus albus, et ruber.

Tartarum vitriolatum.

Sal absinthii.

— tartari.

— genistæ.

Sp. vitrioli tep.

——— dulcis.

— nitri dulcis.

Tinct. cantharidum.

Millepides.

Apes pulv. *vel* ad nigredinem uft.

Cantharides ad nigredinem uft.

Pulvis æthiopicus, i. e. cineres nigri bufonum pulv.

Sal diureticus (of our new pharmacopœia.)

Poma, *apples*; and all summer fruits.

Succi limonum.

aurantiorum omnium.

§ 1953. The next sort of *evacuants* to be considered are,

IV. SUDORIFICS (or *hydrotics*) which procure *sweat*.

§ 1954. SWEATING is not a daily or natural evacuation: Many have enjoyed good health years together, and have scarce at any time been in a sweat.

It never happens but by means of some incidental cause, e. g. labour, exercise of the body,

heat of the weather, or of a bagnio; or by some morbid state of the fluids and solids, or by the agency of some medicines taken into the stomach.

§ 1955. But sweating is *one way*, by which lymphatic humours may pass out of the body, and the giving proper medicines to bring on this sort of evacuation is certainly sometimes a very rational and beneficial method of practice (when the lymph exceeds in quantity, and the natural component parts of it, and the *adventitious, morbid particles* diffused in it, are minute enough to pass through the *sudatory vessels*).

§ 1956. But, in order to know in the various cases that may fall under your direction and management; I say, to know in such cases, when it is necessary, or proper, or safe to promote this *evacuation*, the effects of it should be previously understood, and considered.

§ 1957. Now the EFFECTS of evacuation by sweating, I shall lay before you in the following particulars, viz.

1. *Effect.* The lymphatic humours excreted this way from the *glandule miliares*, situated in the *cutis* [vid. *Lob.* on Fevers, vol. i. § 76. *Boerhaave's* *Instit.* § 424.] and from lymphatic arteries; that is, from *perspiratory vessels*, arising from the ramifications of the subcutaneous, sanguine arteries [*Lob.* on Fevers, § 77, and *Boer. Instit.* § 420.] are all separated from the blood flowing through the subcutaneous capillary arteries, into lymphatic vessels.

§ 1958. 2. *Effect.* The excretion of humours this way lessens the quantity of fluid that usually goes off from the *nervous tubuli* by insensible perspiration. For the distention of the *glandule miliares* and sudatory vessels (during the time of *sweating*) by the humours then flowing through them

them to the exterior *superficies* of the body (and there making the appearance we call *sweat*) compresses many of the *perspiratory* ducts, and proportionally lessens the quantity of perspirable matter, that should be discharged from the *nervous* fluid.

§ 1959. 3. *Effect*. The evacuation of *lymph* this way (during the time of sweating) lessens the quantity of lymph that returns from the subcutaneous lymphatic arteries into the subcutaneous lymphatic veins, and from them into the venal blood, and so to the *vena cava*, if the *sweat* be universal; that is, from all parts of the body.

§ 1960. 4. *Effect*. Less fluid will consequently pass from the right auricle and ventricle of the heart into the pulmonary artery, and through the lungs, during the time of sweating. Whence we may apprehend how sweating, in some cases, may abate a difficulty of breathing, viz. by rendering the vessels of the lungs less full of fluid.

§ 1961. 5. Another *Effect* of sweating, is a DERIVATION; or an augmented *motion* of the fluids through the *sudatory* vessels, and in those sanguine arteries which supply them.

§ 1962. This DERIVATION may remove recent obstructions from the vessels wherein it is produced; and it also may happen to confirm the obstructions, if they have been of a long continuance; that is, if *viscid* matter has for a long time been lodged in them, which renders the course of the fluids through such vessels and glandules, slow and difficult, as in a *cachexia* of long standing.

For the *sweating* such patients, before the humours have been sufficiently attenuated by proper *alterative* medicines, will only increase the obstructing quality, by rendering the fluids still more *viscid*; and so make the case of the patient worse than it was before.

§ 1963. Hence we may infer, that a physician ought to consider the state of his patient, as to the matter of *obstructions*, before he ventures to use this way of evacuation.

§ 1964. 6. Another *effect* of *sweating* is a REVULSION from the *internal* SUPERFICIES; that is, from the membranes and vessels of the *œsophagus*, stomach, and intestines, &c.

This REVULSION is greater or lesser, as the quantity evacuated by *sweating* is more or less.

Hence we may understand, how promoting *sweat* may sometimes cure a *diarrhœa*, and other disorders of the *bowels*, and how it may relieve pains of the *stomach*, that arise from too great a quantity of *acrid lymph* emptied into it.

§ 1965. 7. *Effect*. Another effect is lessening the weight of the body: Some persons in fevers, and without them, have lost exceedingly of their bulk and weight, in a short time, or a few days, by profuse, continued, or repeated sweats: I myself was an instance of this in 1737.

§ 1966. 8. *Effect*. Another effect is, that as sweating diminishes the quantity of the lymph, so it renders the blood less diluted, or proportionally more *thick* than it was before this evacuation was made.

Hence we may easily apprehend, how violent *sweatings* may occasion *obstructions*, and various distempers, which result from too great a thickness or spissitude of the blood; and likewise the necessity there is for persons that sweat profusely, to drink diluting liquors plentifully.

§ 1967. Now the following practical *conclusions* may justly be deduced from what has been observed, as rules to guide our practice, viz.

Rule I. It is *improper* to promote *sweating*, when the quantity of the lymph is *not* too great; because
this

this evacuation will then render the quantity of a principal fluid of the body less than it ought to be.

§ 1968. *Rule 2.* It is *improper* to promote *sweating* when the *blood* and *lymph* are either *spissid*, or *viscid*, or *glutinous*; because it will increase such morbid qualities.

§ 1969. *Rule 3.* It is an irrational and pernicious practice by hot stimulating *sudorifics* to endeavour making evacuation by *sweat* in *ardent* or *inflammatory* FEVERS; or indeed in any fevers wherein the animal fluids are too thick, or have particles of matter diffused into them *too bulky* for an easy circulation and excretion; because it will increase the motion, the heat, and the inspissation of the blood; and consequently, can only tend to augment the fever, and hasten the death of the patient.

§ 1970. *Rule 4.* It is generally very *proper* to promote sweating when the quantity of the *lymph* exceeds the healthful standard, and is not viscid: Because this evacuation may take away its excess.

§ 1971. *Rule 5.* It is proper to promote sweating, when the animal fluids are *too thin*; because it will contribute to render them thicker.

§ 1972. *Rule 6.* In fevers, wherein the animal fluids are *too thin*, without *colliquative* evacuations, it is generally proper by suitable medicines to promote sweating; because thereby superfluous or morbid humours may be evacuated, and the animal fluids recovered to their natural and healthful consistence.

§ 1973. Hence we may understand how it comes to pass, that persons under various disorders find a sensible relief by *sweating*; and how it is that some distempers go off this way.

§ 1974. The several things I have said concerning the evacuation by *sweat*, procured by the medical art, appears to me so very important, that if they are not duly attended to, those who prac-

the phyſic will often fall into great miſtakes, and grievouſly injure their patients.

Therefore have I communicated my ſentiments to your conſideration.

§ 1975. But ſweating is one way to diminifh the quantity of the lymph, when that is exceſſive.

And therefore I ſhall offer to your thoughts ſome general obſervations relating to the *time*, and to the *means* for promoting SWEAT, and then mention ſome proper materials, or ſome ſelect *ſudorific* medicines for procuring this evacuation.

§ 1976. 1. As to the TIME of endeavouring to procure ſweat. And here let me obſerve, that it ſhould not be attempted before *alterative* medicines (for attenuating the fluids, if *too thick*, or *viſcid*, and for comminuting particles too bulky) have been ſufficiently adminiſtered; becauſe, if the morbiſic particles be not duly comminuted, they cannot be excreted through the *ſudatory tubuli*, even *tho'* a ſweating ſhould be obtained.

§ 1977. 2. As to the MEANS for procuring ſweat, theſe are of two ſorts, viz. 1. Thoſe things which increaſe the *force of the action of the heart*, and the *motion of the blood*. 2. Thoſe things which promote a *ſeparation* of the *ſerum* from the red parts of the blood; things which attenuate the animal fluids, and relax the veſſels.

§ 1978. 1. Thoſe things which increaſe the force of the action of the heart, and the motion of the blood; by which means a greater quantity of blood runs through the ſubcutaneous ſanguine arteries every minute; and conſequently, a greater quantity of lymph is ſent every minute into the ſudatory veſſels, if thoſe veſſels are not rigid, and the lymph is not too thick to paſs through them.

Thus ſweat is procured by exerciſe, and by heat of the air in ſultry weather, and in the hot

rooms of a bagnio ; and thus it is when sweating is the effect of hot *sudorific* medicines.

§ 1979. 2. The other sort of *means* for procuring SWEAT, are those things which promote a separation of the *serum* from the red parts of the blood ; things which *attenuate* the animal fluids, and relax the vessels, without much increasing the motion and heat of the blood, and quickening the pulse.

Thus sweating is sometimes produced by *acid* and unfrigorating medicines.

The drinking freely of warm *lemonade*, or eating *lemons*, or *lemons* with *sugar*, or raw *sallads* with *vinegar*, will bring a sweating on many persons. And solutions of *nitrous* and *acid* SALTS, with a sufficient quantity of diluents, will often procure a sweating : Nay, drinking plentifully only of cold, or pretty hot water, will often bring persons into a sweating.

§ 1980. There are two general RULES, which may direct those who practise physic, in choosing the most proper means for obtaining an evacuation by *sweat*, when it happens to be needful, viz.

Rule 1. If the PULSE is *low* and *feeble*, and the vital heat rather *too little*, we should then give such warm *sudorific* medicines as will strengthen the action of the vital organs, raise the pulse, and increase the vital heat ; and at the same time attenuate the animal fluids ; but let such medicines be given to the patient diluted with large draughts of temperate small liquors made hot.

Rule 2. If the PULSE is *quick* and *strong*, and the heat of the body intensely great, then to procure sweat (instead of alexipharmics, or hot *sudorifics*) we should give refrigerating, dissolvent medicines, and temperate *attenuants*, of an *acid* or *nitrous* quality, which may abate the force and

quickness of the pulse, and heat of the body, and may attenuate the blood, and relax the vessels.

These are the fittest means to procure a sweating in such a state of the body; and more especially, because (tho' they should not produce a sweat) they are not only safe, but may be effectual to bring on a plentiful and critical evacuation by urine, and cure the fever.

§ 1981. And it should be observed, that in this last case there is no likelihood of obtaining sweat by hot sudorific medicines; but a great probability of increasing the fever, by increasing the motion, the heat, and inspissation of the blood.

§ 1982. I shall in the next place mention to you some *materials* or medicines proper to procure sweat; and these are either *simple*, or *compound*; both of which may be divided into *warm* and *cool*.

§ 1983. 1. Amongst the *simple*, the following *warm* SUDORIFICS deserve our notice;

Melissa, *Baum*.

Pulegium, *Pennyroyal*.

Salvia vulgaris et nobilis, *Sage*.

Calendulæ flores, *Marygold flowers*.

Crocus anglicus, *Saffron*.

Radix angelicæ, *Roots of angelica*.

Contrayervæ, *Contrayerva*.

Serpentariæ virginianæ, *Virg. snakeroot*.

Petasitidis, *Butter-burr*.

Camphora, *Camphor*.

Coccinella, *Cochineal*: To which may be added,

Antimonium diaphoreticum, *Diaphoretic antimony*.

Sal cornu cervi, *Salt of hartshorn*.

Sal volatilis oleosus, *Volatile oleose salt*.

Sp. C. C. per se, *Spirits of hartshorn*.

Sal succini, *Salt of amber*.

§ 1984.

§ 1984. *Compound fudorifics* are the following, and such like; viz.

Confectio Damocratis, *five* Mithridatii.

Theriaca Andromachi.

Philonium Londinense.

Confectio cardiaca.

Pulvis contrayervæ compositus, &c.

§ 1985. 2. *Cool fudorifics*, when the vital heat is excessive, the pulse quick and strong, may be compounded of *nitrous*, or *acid* ingredients, e. g. *Sal prunell*, tartarum vitriolatum, conserva lujulæ, acetum, sp. vitrioli, sp. nitri dulcis, ol. sulph. and may be prescribed in the following manner; viz.

℞ *Tartari vitriolati* gr. v. *vel* vi. *vel* vii.

Conserv. lujulæ ʒss. *vel* ʒi. m. f. bolus

Horis tertiis vel quartis sumendus, tepidè superbibendo haustus largos decocti bordei, vel liquoris cujuslibet diluentis.

℞ *Æthiop. mineral* ʒss.

Conserv. lujulæ ʒss. m. f. bolus ut prior exhibendus.

§ 1986. Lemonade, lemon-whey, apple-whey, vinegar-whey, drank plentifully, and very warm, may justly be reckoned among the cooling fudorifics; and which may procure sweats, either of them, *per se*.

I may add, that the use of the BAGNIO is a very proper means to procure sweating in *chronical* distempers.

§ 1987. V. I am now to consider EPISPASTICS, or *vesicatories*; that is, blistering *plaisters*, *unguents*, and *cataplasms*, which raise blisters, and produce an excretion of lymph between the *cutis* and *epidermis*.

§ 1988. As all *vesicatories*, if they take effect, produce some evacuation of lymph; on this account they ought to be taken notice of among

those *medical* INSTRUMENTS by which the quantity of the lymphatic humours may be diminished.

§ 1989. Sometimes a plentiful discharge is obtained this way; but it so frequently happens otherwise, that it is hardly worth while to prescribe this sort of remedy merely to diminish the quantity of the lymph.

§ 1990. But there are other ends obtainable by such applications; which therefore may render it prudent to advise them, e. g. in the following cases:

1. When the muscular fibres and vessels are very *lax*; because by their *stimulus* they contribute much to recover them to their natural tensesness.

2. When the *pulse* is too *slow* or *weak* they may be properly advised, to the end of raising and quickening the pulse.

3. When there happens an occasion to make a revulsion from some particular parts a *vesicatory* may be ordered, at a *proper* distance, to obtain it. Thus, in the case of a pain in the teeth, blistering plaisters may be applied behind the ears, or a *cataplasma*, made of *horse-radish*, *pepper*, and the *pulp* of *figs*, &c.

4. When some particular part is paralytically affected, vesicatories may sometimes be prudently advised.

But, 5. It must be remembered, that such applications are *improper* for persons of a sanguine constitution, and whose fibres and vessels are *rigid*, or *too dry*; and in diseases, when the pulse is too strong, and too quick.

6. The application of blistering *plaisters*, or *unguents*, or *cataplasms*, is very improper when a woman has her *menses* flowing, on account of their constringing all the animal vessels, which may suddenly stop that *evacuation*.

§ 1991. VI. Of STERNUTATORIES, or medicines which provoke *sneezings*. These occasion some evacuation of *lymph*, and therefore ought to be taken notice of.

§ 1992. The operation of this sort of evacuants does not much diminish the general mass of lymphatic humours: Yet they are sometimes of signal service against some distempers of the head, where there is a *cold* and *moist* INTEMPERIES of the brain; and may administer great relief to the patient, as they make a quick evacuation from the parts principally affected; and therefore in such cases should be advised.

§ 1993. They are proper in all *sleepy* diseases; as they stimulate the circulation of the blood through the vessels of the brain, and promote a brisker flow of the nervous fluid into the organs of the senses.

§ 1994. VII. EXPECTORANTS, or medicines which promote an evacuation of lymphatic humours from the LUNGS by spitting, must be reckoned among the medical instruments, by which the quantity of the *lymph* may be diminished.

§ 1995. These are especially proper and needful whenever the air vesicles of the lungs have lymphatic humours excreted and lodging in them.

§ 1996. They are therefore much wanted in the humours or wet *asthma*, and in the *confluent* small-pox, and *higher degrees* of the distinct kind.

§ 1997. Sometimes an evacuation of lymphatic humours from the lungs happens spontaneously, both in the *small-pox*, and in some *asthmas*: and considerable quantities have been discharged this way, &c.

§ 1998. Here I must observe, that those medicines which attenuate the lymph, and provoke coughing, are properly *expectorants*, e. g.

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℞ *Tartari crudi albi subtilissime pulverati, conserv. fructuum cynosbatis* ā ā ʒii. *syrupi bacc. sambuci* ʒiiss, *Ol. olivar.* ʒi. m. f. LINCTUS expectorans, *cujus capiat cochl. unum minimum frequenter; vel,*

℞ *Sal. nitri* ʒi. *aq. pulegii (vel byssopi) simpl.* ʒiv. *sp. sal. ammoniac. gut.* xxx. *syr. de althæa* ʒii. et f. MISTURA; *cujus capiat cochl. i. subindè ut opus fuerit ad expectorationem promovendam; vel,*

℞ *Conserv. fruct. cynosbat.* ʒss.

Syr. capill. ven. ʒiss.

Oxymel. scillit.

Ol. olivar. an ʒi. m. f. LINCTUS expectorans; *cujus capiat cochl. ss. ut occasio postulaverit ad expectorationem excitandam; vel,*

℞ *Sapon. Veneti* ʒii.

R. ireos. florent.

Sacchar. alb. ā ā ʒi.

Mellis ʒiiss.

Ol. olivar. ʒi. et f. MISTURA EXPECTORANS; *cujus dosis sit cochl. i. minimum ut fuerit occasio.*

§ 1999. VIII. SALIVANTS are to be considered among the evacuants, for diminishing the quantity of the lymph.

§ 2000. SALIVANTS I call those medicines which bring on a *spitting*, by procuring a more copious evacuation of humours through the *salival* glands into the mouth.

§ 2001. Those internal medicines therefore which *thin* the animal fluids, and those *gargarisms* and *masticatories* which stimulate the secretion by the salival glands must be comprehended in this class of *medical instruments*.

§ 2002. And by these remedies the quantity of the lymph may in some measure be diminished :

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It may be diminished in proportion to the quantity evacuated this way.

§ 2003. But the excretion by spitting may be immensely increased by *mercurial* medicines, either outwardly applied, or inwardly given. And you all know, that this way of curing diseases, either *venereal*, *rheumatic*, or *scorbutic*, is called SALIVATION; which is a procuring and continuing a copious spitting for a certain number of days.

§ 2004. But I must observe to you, that many bodies cannot bear this method of cure; and that I apprehend all *venereal*, *rheumatic*, and *scorbutic* diseases to be curable without it, by other proper *alterative* medicines; and throughout my practice I have never put any one into a salivation.

§ 2005. IX. FONTANELLS, or ISSUES, and SETONS, which (as you have heard) are artificial ULCERS, for procuring and maintaining a continual discharge of humours from the extremities of *sanguine* and *lymphatic* arteries, and from the nervous *tubuli*, must be mentioned among the EVACUANTS, tho' the quantity of the lymph is but little diminished by them.

§ 2006. Thus have I set before you the *medical* INSTRUMENTS, by which the quantity of the *blood* and *lymph* may be lessened, when it exceeds the standard of health; or is greater than it ought to be.

§ 2007. *2dly*, I am next to consider those *evacuants* which render the quantity of the *nervous* FLUID less. All who practise physic should know, not only when the nervous fluid is too much in quantity; but also how its quantity may be diminished.

§ 2008. Here I would observe to you, that it may be diminished by a total abstinence from all *spirituous* and *stimulating* MEDICINES, and ALI-
MENTS,

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MENTS, joined with a diminution of the quantity of daily food, and with the addition of bodily labour or exercise, in chronical diseases.

§ 2009. Be pleased to take notice of two things;

1. That the *nervous* fluid rarely exceeds in quantity, unless in persons that eat and drink plentifully, and live too sedentarily.

And we have no reason to think it excessive in persons who have been ill some days under acute diseases; nor in any who have been languishing under *chronical* distempers.

§ 2010. And 2. That where there is an excess in *this* fluid, there commonly is an excess in the quantity of the *other* fluids, especially of the blood.

And if there is an excess in them (which may be known by examining into the signs of the excess of the *blood* and *lymph*) then *bleeding*, or *purg- ing*, or *diuretics*, should be prescribed; for these evacuations will contribute much to abate the quantity of the nervous fluid, in a short time, as they will occasion less nervous fluid to be secreted.

§ 2011. But the proper evacuants of the nervous fluid are DIAPHORETICS, or medicines which increase the *insensible* perspiration, *e. g.*

Cortex Peru.

Cortex eleutheriæ.

Antimon. diaphoreticum.

Camphor, &c.

But patients, under such a state, must be advised to live lower, and to use exercise.

§ 2012. Thus I have gone through the first class of *medical* INSTRUMENTS; viz. those I call EVA-
EUANTS.

§ 2013. II. The second *general* CLASS of *medical* INSTRUMENTS I have called ALTERANTS; which contains those parts of the *materia medica*, out
of

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of which may be compounded suitable medicines or remedies for removing from the animal fluids any of the *morbid* QUALITIES incidental to them, and which are the productive causes of most diseases which afflict human bodies.

§ 2014. I have shewed you what these morbid qualities are, and *how to know* which of them subsist, and produced the distemper of your patient; and shall now distribute the *materials* for compounding *alterative* medicines into as many classes as there are different *morbid qualities* to be altered and removed.

§ 2015. You may remember, that I divided *morbid* qualities incidental to the animal fluids, into two sorts; viz 1. Those which produce *acute* diseases; 2. Those which bring on *chronical* distempers.

§ 2016. I. I shall begin with the first class, and mention the particular morbid qualities treated on, as productive of *acute* diseases; and under each head give you an account of some proper *alterative* medicines for removing it.

§ 2017. 1. The first morbid quality productive of acute diseases mentioned was a *spissitude*, or too great a thickness in the consistence of the blood; as in *ardent* fevers, when there is not a just proportion of *serum* to the *red* globules, &c.

§ 2018. Now there is a great variety of things endowed with qualities proper to thin the blood; and such things are the suitable *alterants* for removing the *spissitude* of the blood.

§ 2019. Many of the summer fruits have an attenuating quality; which renders them fit to be reckoned in this class; e. g. *strawberries*, *rasberries*, *cherries*, (*cerasorum dulcium omnia genera*) *apples*, *oranges*, and *lemons*, *common sorrel*, *wood sorrel*. — And persons under ardent fevers may be allowed

allowed to eat the summer fruits, &c. The following medicines are fit for compounding suitable remedies.

Nitrum.

Sal. prunellæ.

Sp. nitri dulcis.

Sp. vitrioli.

Sp. vitrioli dulcis.

Conserv. lujulæ.

Conserv. fructus cynosbati.

Æthiops mineralis.

Tartarus vitriolatus.

Acid syrups, &c.

§ 2020. And as a *rigidity* of the muscular fibres and vessels commonly attends a *spissid* state of the blood, I would observe to you that the particulars mentioned are proper to remove it; and that to the same end the following *alterants* may contribute; viz.

Radix et fol. althææ, malvæ, &c.

Oleum olivarum.

Sperma ceti.

Decoctum hordei.

Ficus, and their decoction.

§ 2021. 2. The second *morbid* quality productive of acute diseases, discoursed on by me, is the *viscid* quality.

This subsists in all *intermitting* and *continual inflammatory* fevers; and is produced by inspissating causes.

§ 2022. Here I would observe to you, that there are medicines of very different natures which yet have a property *alterative* of the morbid quality now under our consideration.

§ 2023. For, 1. *Acids* have a virtue very efficacious often in removing a *viscid* quality from the animal fluids, as well as the *spissitude* of them:
the

the vegetable acids I have mentioned have been of great service; and, in the summer season, I often allow my patients to eat moderately *strawberries, raspberries, cherries, &c.* in fevers.

§ 2024. *Sp. vitrioli, sp. nitri dulcis, &c.* have also been frequently found of great efficacy in removing the *viscid* quality.

§ 2025. I have also found *alkaline salts* of great service in removing the *viscid* quality, e. g. *sal absinthii, sal tartari, et sal c. c. per se, vel cum nitro mist.*: and so I have the *sal ammoniacus crudus*.

§ 2026. I often prescribe *JULEPS, OR DRAUGHTS* made with one or other of these salts, and a certain proportion of *coccinell.* or of the *antimon. diaphoret.*: But while I order these *alkaline* salts, I do not direct any *ACIDS*, either among their aliments or medicines.

§ 2027. 3. There is another kind of *alterative* medicines to be mentioned as suitable remedies against the *viscid* quality of the blood; and this consists of *neutral salts*.

§ 2028. Thus a mixture of *Sal absinth. cum succ. limon.* in a certain proportion, makes a *neutral* salt of well-known efficacy in many inflammatory fevers.

§ 2029. I need not say, that the common *saline* draught is a good medicine for removing that *viscid* quality on which inflammatory fevers depend; but I can assure you, that it is often much more effectual, if five, or ten, or fifteen grains, or a scruple of the *æthiops mineral* be added to it.

§ 2030. I may further say, that neutral salts may be made in the following manner:

℞ *Sal absinth. (vel salis tartari)* ʒss. *dissolv. in aq. alexiter. simpl.* ʒiiss. *dein adde*

Sp. nitri dulc. (vel sp. vitrioli, vel sp. aceti [i. e. acet. distillat.]) tot guttas quot sufficient, ad

saturationem: dein finita effervescentiâ adde
Aquæ nucis moschatæ ℥iii. vel ℥ss.

Sacchar. alb. q. s. ad saporem gratum. m. f.
haustus alterans.

§ 2031. SUGAR may also fitly be reckoned among the alteratives of a viscid quality, on the account of its saponaceous nature, &c. And mixed with *nitrous*, *acid*, or *alkaline* salts, it renders them not only more grateful to the taste, and to the stomach, but their operation more easy; and yet as efficacious, when mixed with the blood, and circulating with the other fluids of the body.

§ 2032. I reckon PULVIS ÆTHIOPICUS (*sive cineres nigri bufonum*) an *alterative* for the intention we are pursuing, &c. And I apprehend, that this medicine, by destroying the cohesion of the viscid particles, proves a powerful *diuretic* to persons under fevers depending in a great measure on a *viscid* blood. I have, with a sort of wonder, sometimes observed, how the evacuation by urine has been greatly increased in some of my patients under the confluent small-pox, on their taking a few doses of this medicine.

§ 2033. The *antimonium diaphoreticum* may also be reckoned in this class: It has appeared to me divers times, that my alterative medicines have been more effectual when this has been one of the ingredients.

§ 2034. As to *intermitting* fevers, the following particulars are much in my esteem; as ALTERNANTS, to be given in the *intermissions* of the fever, for freeing the blood from that viscid quality on which it depends; viz.

Cortex Peruvianus.

Cortex eleutheriæ.

Radix serpentariæ Virginianæ.

Radix bardanæ majoris.

Radix

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Radix pentaphylli.

Coccinella.

Camphora.

Telæ araneorum.

Oleum juniperi, cum spiritu salis ammoniaci
mistum.

Sal martis, &c.

END of LECTURE XVI.

LECTURE XVII.

On ALTERNATIVE Medicines. 3. *Correctors of alkaline acrimony.* 4. *Correctors of specific morbid qualities from effluvia.* 5. *Correctors of complex morbid qualities.*

II. *Of alteratives proper to correct morbid qualities, producing chronical distempers.* 1. *Of such as are proper against an acid acrimony:* 2. *An alkaline acrimony:* 3. *The glutinous acrimony:* 4. *The oleaginous quality:* 5. *A scorbutic saline acrimony.*

III. *Of RESTORATIVES; i. e. such means as are proper to supply what is deficient or wanting in the body.*

IV. *On BATHING in warm or cold water.*

§ 2035. **G**entlemen, the subject we are upon is that of alterative medicines; by which morbid qualities may be removed from the blood.

You may remember, I distributed morbid qualities into two sorts; viz. those which produce *acute* diseases and those which bring on *chronical* distempers.

§ 2036. I am now considering those medicines, by which the *morbid qualities productive of acute diseases may be altered*, and the blood freed from them.

§ 2037. And I have set before you divers *alterative* medicines, by which the *spissitude* of the blood, on which *ARDENT* fevers depend; and by which the *viscid* quality of the blood, from which most intermitting, and remitting, and continual fevers result, may be altered and removed.

§ 2038.

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§ 2038. 3dly. I proceed therefore to shew what remedies may be effectual for removing an *alkaline, dissolvent, acrimonious QUALITY*, subsisting in the blood of persons under putrid and malignant fevers.

§ 2039. As the effect of this quality is a *dissolution*, more or less, of the consistence of the blood, or a comminution of its red globules, and a relaxation of the muscular fibres and animal vessels, and a *putrefaction* of the animal fluids; so the consideration of these effects will lead us to apprehend, that those medicines are the proper alterants in cases of this nature, which have properties conducive to *inspissate* the blood; to free and preserve it from putrefaction; to strengthen the action of the vital organs, and the contractile power of the vessels; and to increase the cohesion of their component parts.

§ 2040. Therefore the following medicines may reasonably be accounted suitable *alteratives* of the morbid quality now under our consideration; viz.

Nitrum, *Nitre*.

Sal prunellæ, *Salt prunella*.

Sal vulgaris, *Common salt*.

These are fit remedies against a putrefactive state of the animal fluids and solids.

Sal martis, *Salt of steel*.

Radix symphyti, *Comfrey root*.

Radix tormentillæ, *Tormentil root*.

Radix eryngii, *Eryngo root*. And

Radix serpentariæ virginianæ, *Virginian snake-root*.

These are proper to strengthen the cohesion of the component parts of the muscular fibres and vessels; and I may observe, that

Camphora, *Camphor*.

Coccinella, *Cockineal*.

Salvia, *Sage*.

Corallium rubrum, *Red coral.*

Bolus anglicus, *English bole.*

——- armenus, *Armenian bole.*

——- gallicus, *French bole.*

Gummi tragacanthæ, *Gum dragon.*

——- arabicum, *Gum arabic.*

May be of great service for obtunding the points of the acrid dissolvent particles diffused in the blood of people under putrid fevers : and then,

Elixir vitrioli.

Spiritus vitrioli.

Sp. nitri dulcis.

Balsamum restringens nostrum.

Are suitable remedies for altering the texture and figure of the acrid dissolvent particles, mixed with the animal fluids, under such acute diseases.

§ 2041. Compound medicines, happily effectual for the cure of fevers produced by dissolvent causes, may be seen in the histories of such cases related in my *second volume on fevers.*

§ 2042. 4. SPECIFIC morbid qualities produced by *effluvia* from bodies sick under some contagious distemper, as the *small-pox*, *plague*, &c. were mentioned among the causes of *acute diseases*, &c.

§ 2043. And I observed to you, that the infecting *effluvia* of each contagious distemper, when they took effect, produced a morbid quality, and a distemper of the same *species* with that from which the infection came.

§ 2044. I may further observe, that in every contagious fever the *specific* quality that produced it renders the blood either *viscid*, as in most sorts of the *small-pox* ; or *too thin*, as when *colliquative* evacuations happen ; or,

Partly too thick, and partly too thin, &c. as in the confluent small-pox.

§ 2045.

§ 2045. In all *contagious* fevers, the infecting *effluvia* (received into the blood, do, by attracting, or being attracted by particles of it, and uniting and cohering with them) form greater particles, particles *too big* or bulky for an easy circulation, and for a while too big to be excreted.

§ 2046. Hence it is, that the motion of the blood through the capillary sanguine arteries becomes slow and difficult. And hence it is, that so many particles are lodged at the endings of the *excretory* vessels of the external superficies of the body under the *epidermis*, and cannot pass through the pores of it, in all *eruptive* fevers. Hence also arise *buboes* and *carbuncles* in pestilential fevers.

§ 2047. The consideration of these things will lead us to understand; 1. That suitable *alterants* in *contagious* fevers are to be made, by compounding some of the drugs mentioned in the class of ingredients *alterative* of a *viscid* quality, when we find reason to think, that the specific morbid quality has rendered the blood viscid:

And, 2. That the *alterants* must be compounded of some of the particulars mentioned as remedies against an *alkaline*, *dissolvent*, acrimonious quality, when we see cause to apprehend the *specific* morbid quality has rendered the blood *too thin*.

§ 2048. Long experience has shew'd what sorts of medicines are proper to *comminute* particles *too bulky* for excretion, and to cure fevers depending on them.

§ 2049. 5. COMPLEX MORBID QUALITIES sometimes subsist, and produce a fever with *complex* symptoms. And in such cases the medicines must be complicated, *i. e.* compounded of ingredients according to the indications of the concomitant symptoms, &c.

§ 2050. As for remedies adapted to remove those particular symptoms of *acute* diseases, which

are the effects of the cause that produced them; these are to be inferred from the nature of the attendant symptoms, which have been explained.

§ 2051. II. The second general class of *morbid QUALITIES* comprehends those which are the producing causes of *chronical* distempers; and those *alterative* medicines, which have virtues or properties efficacious for altering and removing them are the proper remedies for curing *chronical* diseases. I proceed therefore now to set before you, under each *morbid quality* productive of *chronical* distempers, proper alterative medicines.

I gave an account in this class of five *morbid* qualities, which are the general causes of *chronical* distempers.

§ 2052. I. The first was the *acid acrimony*; and I observed, that this morbid quality chiefly happens in *infants*, *children*, and persons who live much on *acid* or *acescent* aliments; and subsists in the *primæ viæ*, in the contents of the stomach and bowels.

And the following parts of the *materia medica* are proper alterants for removing it; e. g.

River water, and all watery liquors, by their diluting quality: *Water is one of the best dissolvents of all salts.*

Chelæ cancrorum, *Crabs claws.*

Testæ ostreorum, *Oysters shells.*

—— astacorum, *Lobsters shells.*

Corallia, *Corals.*

Margaritæ, *Pearls.*

Creta alba, *White chalk.*

Bolus anglicus, *English bole*; called by some *terra rubrica*, *ruddle*; and then the

Bolus armenus, *Armenian bole*; et

—— gallicus, *French bole.*

Althææ, } Radic. et folia, *Roots of marsh*
et Malvæ, } *mallows and common mallows.*

Amygdalæ

Amygdalæ dulces, *Sweet almonds.*

Oleum olivarum, *Olive oil.*

Raf. C. C. *Hartshorn shavings.*

These last five particulars *obtund*, or sheath the pungent points of the acid particles.

§ 2053. And I may add the *alkaline* fixed salts, e. g. sal absinthii albissimus, *salt of wormwood*, sal tartari, *salt of tartar*, as *alteratives* of the *acid* quality.

§ 2054. 2. The second morbid quality mentioned as productive of *chronical* distempers, was an *alkaline* ACRIMONY.

And under this head I think it may be sufficient to observe, that all natural acids, *viz.* those of the vegetable kind; and likewise all *artificial* ACIDS produced by fermentation, as vinegar; or by chemical distillation, e. g. spiritus salis, spiritus vitrioli, &c. have properties evidently *alterative* of an *alkaline* quality.

2055. 3. The third *morbid* quality, considered as one of the general causes of *chronical* distempers, was the *glutinous* quality.

§ 2056. I mentioned (as you may remember) a *viscid* quality of the blood, as one general cause of acute diseases, and with good reason; because the blood taken from persons under various sorts of fevers undeniably appears to have a *viscid* quality.

§ 2057. And I have reckoned a *viscid* or *glutinous* quality likewise as a general cause of *chronical* diseases, on as demonstrative a proof; *viz.* that the blood taken from persons under divers of them, has been very *sizy* or *glutinous*.

§ 2058. This perhaps may raise a question, *viz.* How is it that in *chronical* distempers resulting from a *viscid* or *glutinous* quality of the blood there is not an *acute* fever?

I answer,

I answer, there may be different sorts of *size* humours, as there may be different sorts of *glue*, composed of different materials, and endued with some different properties in consequence thereof, &c. e. g.

Gum lac, dissolved with *sp. vin. rect.* makes very strong adhesive glue.

And most sorts of *gums* dissolved in a certain proportion of *water* make *glutinous fluids*; each of which, though they agree all in being *glutinous*, yet have some *specific* and peculiar properties, by which any one of them is different from all the others.

§ 2059. And thus, in the two general sorts of diseases, viz. *acute* and *chronical*, the *size* humours in the *acute* diseases may have some properties specifically different from the *size* humours which subsist in *chronical* distempers.

§ 2060. And it certainly is so; for otherwise, there could not be produced such different sorts of distempers, as *acute* and *chronical*, by *viscid* or *glutinous* humours in the blood.

§ 2061. I don't know how it is possible to attain the knowledge of the *specific* DIFFERENCE, which certainly exists in different *size* fluids: but this we certainly know, by long experience, that if we remove or free the blood from the *viscid* or glutinous quality, either in the *acute* or *chronical* distempers, we cure the distempers produced thereby.

§ 2062. It may therefore well content us, if we can know by what *alterants* the *viscid* or *glutinous* quality of the animal fluids may be altered and destroyed.

§ 2063. In *chronical* distempers produced by the *viscid* quality, I am inclined to think that, besides the *viscid* humours fluctuating in, and circulating with the blood, there may be a sort of
gluten

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gluten adhering to the coats of some of the vessels, which probably may be the reason why many warm *plants, roots, herbs, seeds, &c.* called *anti-scorbutics*, are manifestly serviceable in chronical distempers resulting from the morbid quality under our consideration.

§ 2064. And it deserves notice, that in these *chronical* distempers, generally the PULSE is *too weak*, and the vital HEAT *too little*, &c.

§ 2065. Here I may observe, that all those *alterants*, which I mentioned as proper remedies against the viscid quality in acute diseases, are likewise proper, and have been effectual against those we have now under our consideration: But, besides these medicines, the following may be reckoned among the suitable alteratives, e. g.

Absinthium, Wormwood.

Abrotanum, Southernwood.

Anisum, Anniseed.

Betonica, Betony.

Cochlearia, Scurvygrafs.

Fœniculum, Fennel.

Hedera terrestris, Groundivy.

Marubium album, White borehound.

Mentha vulgaris, Common mint.

Mentha piperitis, Peppermint.

Pulegium, Pennyroyal.

Rosmarinus, Rosemary.

Ruta, Rue.

Salvia, Sage.

Scordium, Water germander.

Serpyllum, Wild thyme.

Thymus, Thyme.

Urtica, Nettles.

Lignum Guaiacum.

----- *Sassafras*, and many others.

And I may add, the *gummi guaiaci, cinnabar nativum et artificiale*, (*native and artificial cinnabar*)

bar) æthiops mineralis, &c. are likewise proper and powerful *alteratives*, especially if given with some proper preparation of the *aqua calcis*.

§ 2066. I may add, from my own experience, that the *balsamum capivi* is of special service in such chronical diseases; as it deterges all the animal vessels from any *glutinous* particles adhering to the internal superficies of their membranes; and at the same time strengthens them; that is, increases the force of cohesion of their component parts.

§ 2067. 4. A *pinguedinous* or *oleaginous* quality: Pinguedinous particles, that is, particles which, when secreted from the blood, and joined with other particles of the same nature, constitute those parts of the body we call *FAT*, do always subsist in the blood, and are formed of the oily parts of our aliments.

§ 2068. This sort of particles is of great importance in the animal œconomy; and it is very necessary, that the blood, by suitable foods, be daily supplied with them; but when the quantity of them becomes *excessive*, they constitute a morbid quality; and we should know the means to remove it.

§ 2069. The human *bile* is a natural and proper *alterative* of this morbid quality, which *rarely* happens, if the *bilious* secretions are in due quantity, and of a right quality.

§ 2070. As to medicines that are *alterants* of this quality, I may recommend *bitters*; because they help to increase and rectify the *bilious* secretions.

§ 2071. *Saponaceous* compositions are also fit alterants; because they dissolve *FAT* and *OILS*.

When soap is prescribed in the form of *pills* or *bolus*, or a *draught*, and taken by a patient under this morbid symptom, in a sufficient quantity,
the

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the *saponaceous* medicine mixes with the blood, comminutes the *pinguedinous* particles, dissolves them, and renders them minute enough to pass out of the body by the common ways of evacuation; and thus the number of *pinguedinous* particles in the blood is lessened, and the morbid quality removed.

§ 2072. Likewise all the *sugars* and *honey* may be justly reckoned *alteratives* to the same end; because they are of a *saponaceous* nature, and have a quality of dissolving oleaginous substances—May not the YOLKS of EGGS, for the same reason, be esteemed a proper *alterant*, &c.?

§ 2073. The medicines I have mentioned as proper remedies for removing or taking away the *pinguedinous* or *oleaginous* quality from the blood are proper, and may prove of signal service to such as are *too fat* and corpulent.

§ 2074. 5. A *scorbutic saline* QUALITY is another general cause of many *chronical* distempers. It is so of all *cutaneous diseases*.

§ 2075. There are probably a great variety of *scorbutic* SALTS incidental to the animal fluids; though we cannot explain or give an account how they came to subsist in the blood, or describe the differences of them. For we have reason to think, that there is a difference between the *salts*, which produce the *herpes*, and those which produce the *leprosy*; and so as to other cutaneous distempers.

§ 2076. But *N. B.* I apprehend the *morbid saline* qualities may all be cured by the same remedies; and this opinion is grounded on reason, and supported by experience.

As to reason; if the same remedies can render the particles of the various kinds of *scorbutic* SALTS minute enough to pass easily through the smallest excretory *tubuli* and pores of the *epidermis*, then
may

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may all cutaneous distempers, produced by saline qualities, be cured by the same remedies.

And that the particles of the various kinds of *scorbutic* SALTS may be altered and comminuted to such a degree by the same remedies, seems manifest to me from experience.

§ 2077. As to alterants in the present cases, WATER may be reckoned one of great importance. It will dissolve all kinds of salts; and therefore is an excellent *antiscorbutic*, and drank plentifully (where there is no symptom to forbid it) will contribute much to the cure of *cutaneous* and other *scorbutic* distempers.

§ 2078. *Cinnabar*, *native* and *artificial*, and the *æthiops mineral*, are powerful alterants of the saline *scorbutic* qualities. They produce their salutary effects by breaking (with their gravity and solidity) the *saline* particles into *lesser* and *lesser*, till they are minute enough to pass out of the body through the minutest passages.

§ 2079. *Gum guaiacum* is serviceable in these cases, and so is the *balsam. capivi*, and other *turpentine*s, by deterging the vessels, and rendering the passage of excrementitious particles through them more easy.

§ 2080. *Antimony*, *crude* and *levigated*, and the *antimony diaphoretic*, and the *tinct. antimon.* are proper alterants, &c. and so are the *flores et lac sulphuris*.

Thus I have gone through the various sorts of ALTERANTS for removing morbid qualities from the blood, and curing diseases produced by them.

§ 2081. III. There remains another sort of *medical* INSTRUMENTS to be considered, which I call RESTORATIVES; because they are to supply somewhat that is deficient, or wanting in the body.

§ 2082. DEFICIENCIES are daily occurring in every living body (how healthy soever) by means of
of

of the continual expences of the blood, and other fluids; and of the diminutions of the *solids*, produced by all the motions in the body, both spontaneous and voluntary.

§ 2083. As to these daily deficiencies, common suitable aliments are the *proper* and sufficient RESTORATIVES, daily supplying the body with what is daily wanting in it, during the time of health.

§ 2084. But there are various incidental occasions for physicians to direct restoratives. I shall therefore in some particulars shew you, when they are especially wanted.

§ 2085. 1. They are wanted in *acute* diseases, when, by their continuance, the quantity of the *blood*, *lymph*, and *nervous* fluid, becomes too little. For as persons under these distempers immediately fall off from their food, and have greater *evacuations* by *urine*, or *sweat*, or *perspiration*, or *cutaneous* eruptions; and suffer daily diminutions of strength, and of flesh, in the course of their sickness; so they have *deficiencies* daily increasing in their bodies, till their diseases come to a period.

2086. Is not therefore the natural and rational inference from this state of things in every patient under an *acute* disease; I say, is not the natural inference plainly this; *viz.* that all such patients in the progress of their sickness, are in need of *restoratives*?

And therefore that it is the duty of every physician, to consider what sorts of restoratives are wanted, and may prove beneficial to his patient.

§ 2087. But this part, this very important part of medical practice, I apprehend, has not been by every practitioner in physic considered, or attended to, as it *ought* to be.

§ 2088. The consideration of what has been now said, many years ago convinced me, that those

those persons have very much mistaken notions, who think to cure distempers by *forbidding all nutritious diet* to the sick.

§ 2089. A distemper is not to be cured by starving the patient. In one sense indeed it may be said to cure it, and to free the patient from all future sickness; viz. by *putting a speedy period to his life*.

§ 2090. For, as in the nature of things it is reasonable to expect, that suitable *nutritious* aliments may yield a *chyle*, which will soften the growing *acrimony* of the blood, and supply proper matter for the necessary secretions of the *nervous* and of other fluids; for repairing the *wastes* of the solids, and the diminished *strength* of the action of the vital organs; so (in my own, and that long, experience) I have never found any inconvenience from allowing my patients such a *nutritious* diet as is not too strong for the power of their *digestive* fluids, &c. On the contrary, I have always observed that they are refreshed thereby; that suitable nutritious aliments have been as a constant *cordial*; and that they have gone through their sickness with more comfort, and have sooner recovered their strength afterwards.

§ 2091. And I have always looked on it as a very threatening symptom, when a patient has an abhorrence to all aliments, both liquid and solid. I always inquire what my patients can eat, or drink, and what fits well on their stomachs; and although I always forbid them solid animal food, yet I sometimes allow them *broth*, made of *chicken*, *mutton*, *lamb*, or *veal*, &c.

§ 2092. It is very observable, that when an *acute* distemper leaves a person, he becomes more hungry than he was before he fell sick; and his

augmented appetite generally continues, till the quantity and quality of his blood, and his strength, are recovered to the standard of health.

§ 2093. 2. RESTORATIVES are wanted in many *chronical* distempers, where there has been a deficient appetite, and the quantities of aliments taken into the body for several weeks or months have not been sufficient to repair the daily waste of the animal fluids and solids.

§ 2094. Such persons are in a weak, decaying, and languishing condition.

§ 2095. When we are concerned with any patient under a *chronical* distemper, attended with such a *loss of appetite*, (besides contriving *alterants* for removing the *morbid quality* which produced his disease) we should have a special regard to direct remedies that may recover his appetite, and capacity of digesting food. Because a sufficient quantity of suitable aliments is necessary to restore what is become wanting through the loss of appetite, &c.

§ 2096. 3. RESTORATIVES are necessary after losing great quantities of blood from wounds, or by spontaneous hæmorrhages.

§ 2097. The reasons hereof are so evident, that I need not insist on them. But I may observe to you; that, for restoring what is wanting in these cases, suitable ALIMENTS must be directed, and such *cordial* medicines, as may render the pulse *stronger* and *slower*, and increase or restore the *contractile* power of the *muscular* fibres and animal vessels.

§ 2098. For, after great loss of blood, the PULSE becomes commonly *weaker* and *quicker* than it was before, and the action of the solids less *strong*.

§ 2099. Here I may observe to you, that the *balsamum restringens nostrum* is a suitable remedy on such occasions; and that the following julep is a proper cordial.

R *Sal prunell.* ʒss.

Sal martis Riverii gr. xv. *dissolv. in aq. menth. vulg. simpl.* ʒiii. *dein adde aq. cinam. spirituos.* (vel *aq. menth. vulg. spirituos.*) ʒii.

Syr. balsam. ʒi.

Sp. vitriol. tot guttas quot sufficient ad gratam aciditatem, m. f. julepum, cujus capiat cochl. ii. horis sextis, vel sæpius, si postulaverit occasio.

§ 2100. 4. RESTORATIVES are likewise wanted after large and repeated *evacuations* of any kind, from bodies not *plethoric*; whether those *evacuations* were spontaneous, or produced by medicines indiscreetly given to the patient.

§ 2101. Because such large *evacuations* have made a *deficiency* in the quantity of the lymphatic fluid, and occasioned deficiencies in the quantity of the daily *secretions*.

§ 2102. 5. RESTORATIVES are also needful, whenever there is a deficiency in the *strength* of the vital organs (i. e. of the heart, lungs, and arteries) and in the contractile force of the muscular fibres and animal vessels.

§ 2103. And this deficiency may be known by feeling the pulse, and the muscles of the arm; and comparing the state of the one with that of the other.

§ 2104. 6. RESTORATIVES are likewise wanted after long and great *fatigues* of every kind; because they have occasioned too great expences, both of the *sanguine* and *nervous* fluid; and made a deficiency in the quantity of both of them.

§ 2105.

§ 2105. You may from these particulars easily perceive, that there frequently happen occasions for *restoratives*, and that medical instruments of this sort are of great importance in the practice of physic; and that a physician is obliged, in duty, to make use of, or to direct, a *diet*, and prescribe *medicines* of this kind, whenever they are wanted.

§ 2106. RESTORATIVES may be distributed into three classes; viz.

1. Those by which the *quantity of the blood and other animal fluids*, and the bulk of the muscular fibres and animal vessels may be recovered to the *standard of health*.

2. Those by which the *force of the action* of the heart and arteries (diminished by sickness or any other cause) may be restored to the *healthful standard*.

3. Those by which the natural *balsamic consistence* of the blood, and the coherence of the compound parts of the solids, may be restored to their *healthful state*. (This class relates to the *qualities*, as the first does to the *quantities*, of the animal fluids and solids.)

§ 2107. I. Of those *restoratives* which contribute to recover the quantity of the blood and other animal fluids, and the bulk of the solids to their healthful standard.

§ 2108. And for this intention I would observe, that suitable *aliments* are the proper remedies; such as the following; viz.

1. Oatmeal gruel.
2. Bread gruel.
3. Rice gruel.
4. Millet gruel; particularly suitable when the vessels are lax.
5. Fine wheat-flour gruel; especially proper when there happen any colliquative evacuations.

And to half a pint of each of these may sometimes be added two or three spoonfuls of *canary*, or *mountain*, or *white wine*; or instead of wine, a tea spoonful, or two or three, of good *brandy*, when colliquative evacuations occur; and when things turn *sour* in the stomach of the patient, with four or five grains of nutmeg, and so much *loaf sugar*, as will make it agreeable to the patient for a *nutritious* and cordial mess. Likewise,

6. Milk pottage.

7. Almond milk.

8. Panada, made with the crumb of white bread, mixed with wheat flour, or with the white *sea biscuit*, in cases attended with a looseness.

9. Milk and apples, sweetened to the palate of the patient, when the muscular fibres and animal vessels are *rigid*.

10. Oatmeal caudle, with white wine, or sometimes with red port.

11. Sack whey, or whey made with mountain wine; not made clear, but so as to look very milky, and sweetened to the palate, with about five grains of nutmeg; also vinegar whey, and apple whey, sweetened with sugar to an agreeable taste, when there is a spissid quality in the blood, and when the animal vessels are rigid.

12. Milk *perse*, especially in chronical diseases, when the natural appetite has been lost.

13. Broths made with flesh may sometimes very properly be advised, e. g.

1. Mutton broth.

2. Lamb broth.

3. Veal broth.

4. Chicken broth. And these broths may be made in the following manner, or nearly so.

Take two ounces of either mutton, lamb, veal, or chicken; half an ounce of the crumb of white bread, or two or three drachms of oatmeal, or fine white flour; and boil them in 12 ounces

ounces of river water, till it comes to half a pint, and then strain it for a mess, which the patient may eat with bread in it, or drink without; but I advise the putting five or six grains of common *salt* in it, which contributes to its sitting better on the stomach, and to prevent its corrupting.

And I advise, that no more broth of flesh be made at a time for the patient than he can take before it is cold; because broth heated again after it has been cold, generally sits uneasy on the stomach, as I have found in myself, and many others have also experienced.

14. Wine caudle, made with *egg* in the following manner, *viz.* Take the *yolk* of one new-laid *egg*, beat it with a spoon till it becomes very thin, adding to it, by little and little, a quarter of a pint of some white coloured wine; then add six or seven grains of nutmeg, and a sufficient quantity of loaf sugar in powder, to bring it to a pleasant taste; and this may serve for two draughts, to be taken at half an hour's distance, milkwarm.

15. Almond milk, or an emulsion of almonds, may sometimes be advised; as likewise chocolate or coffee with milk, in some cases.

§ 2109. When the patient's stomach will bear it, they may be allowed to eat *biscuit*, *bread* and *butter*, a water-toast, bread pudding, flour pudding with or without currants.

§ 2110. And after a fever is come to its period, a course of *ass's milk* may be properly advised. But if the patient is so poor that he cannot be at the expence of *ass's milk*, he may be advised to drink *cow's milk*, made blood warm, alone, or sometimes with half a spoonful of rum or of brandy put to a pint of it; or he may use the following diet, *viz.* Take cow's milk lbs, the crumb of white bread one ounce, or an ounce and an half;

sugar two drachms ; let them be mixed cold, but made warm as milk immediately taken from the cow : and he may take such a mess as often as he will, without any other food.

§ 2111. II. I am to consider those RESTORATIVES, by which the force of the action of the heart and arteries (when sunk below the standard of health) may be recovered, and the natural lively motion of the fluids be restored.

§ 2112. For this intention drugs out of various classes (according to the former distributions of the parts of the *materia medica* in our pharmacopœia) may conduce, *e. g.*

1. The class of *nervous* drugs (or medicines) affords a great plenty of ingredients for compounding *restorative* medicines of this kind.

§ 2113. I call these restorative medicines of this class, which (when taken into the stomach) have an immediate effect on the *nerves* and their *fluids* ; and produce *comforting, pleasing, and enlivening SENSATIONS*, in the stomach, head, and heart, and augment the force of the vital organs, cheer the spirits vital, natural, and animal ; and on these accounts may bear the character of *cordials* : and such are the following simples ; viz,

Folia Majorana, *Marjoram.*

—— Melissæ, *Balm.*

—— Rorismarini, *Rosemary.*

Flores Lavendulæ, *Flowers of Lavender.*

—— Calendulæ, —— *of Marigold.*

Alkermes, *Kermes Berries.*

Cubebæ, *Cubebs.*

Nux Moschata, *Nutmeg.*

Cort. Macis, *Mace.*

—— Winteranus, *Winter's Bark.*

And so may the

Rad. Angelicæ, *Roots of Angelica.*

—— Galangæ, —— *Galanga.*

Rad.

Rad. Pœoniæ, Roots of Pœony.

—— Contrayervæ, Contrayerva

—— Serpentariæ Virg. Serpentry

—— Zedoaricæ, Zedoary

—— Zinziberis, Ginger

} Roots.

§ 2114. 2. And from among those accounted *carminatives*, we may venture to take into our present class these following particulars; viz. the *folia angelicæ*, *chamæmeli*, *feniculi dulcis*, *pulegii*; and the *SEMINA anethi*, *anisi*, *carui*, *coriandri*, *cardamoni*, and the *grana paradisi*.

§ 2115. And of those which have the character of *hysterics*, we may fitly admit the following particulars, viz. *camphora*, *crocus Anglicus*; *gummi assafœtidæ*, *galbani*, *myrrhæ*, and the *castoreum Russiæ*, *moschus* (*musk*), the *succina*, and *chalybeates*, &c.

§ 2116. And I may observe, that out of these drugs an immense variety of medicines, in all forms, may be compounded, for restoring the vital strength, when diminished by *sickness*, or any other incidental causes.

§ 2117. As for *artificial*, both simple and compound medicines (proper for the intention now under consideration) there are several in our new *pharmacopœia*.

Particularly the following; viz. the *spiritus et sal succini*, *spiritus et sal cornu cervi*, the *sal volatilis ammoniaci*, and the *spiritus salis ammoniaci*, *spiritus salis ammoniaci dulcis*.

Likewise the *spiritus volatilis fœtidus*, *spiritus volatilis aromaticus*.

§ 2118. And among our *spirituous* waters, the following may be reckoned; viz. the *aq. alexiteria spirituosâ*, the *aq. alexiter. sp. cum aceto*, the *aq. sem. anisi composita*, *aq. corticum aurantiorum*, *aq. sem. cardamomi*, and the rest of the strong waters, together with the spirits of *lavender* and *rosemary*.

§ 2119. The *vinum croceum*, tinct. aromatic. tinct. *cantharidum*, tinct. *cardamomi*, tinct. *castorei*, tinct. *serpentariæ*, *confectio alkermes*, and the *confectio cardiaca*, with some others, may be also used in this case to great advantage.

§ 2120. III. Of those RESTORATIVES, by which the natural *balsamic* consistence of the blood, and the coherence of the component parts of the solids may be restored to their healthful state.

§ 2121. This class of medical instruments, as I have observed, relates to the *qualities*, as the first does to the *quantities* of the animal fluids and solids.

§ 2122. There are some different things, which appear requisite to the weighty intention we have now under our consideration, viz. 1. To remove an *acrimony* from the blood, if there remains any in it.

And to this purpose the following medicines appear proper, viz. decoctions of the raspings of the *guaiacum* wood, and of the bark and wood of *sassafras*.

Likewise these decoctions, mixed with a *mucilage* of the *rad. althææ*, or with a solution of gum arabic. gum *tragacanth.* et *antimon.* *diaphoret.*

§ 2123. 2. To deterge the vessels.

And to this end, the *balsam. è mechá*, *balsam. capivi*, *terebinthinæ è chio*, et *cipro*, which may be given in various forms, will very much conduce.

§ 2124. Detergents prepare the vessels to recover their bulk by the accession of nutriment from the blood.

§ 2125. 3. To bring the component parts of the vessels to cohere more closely together.

Here I may observe, that those medicines are proper in this case, which conduce to remove their laxity. And the *radix consolidæ majoris*, the *rad. tormentillæ*,

tormentilla, the *cortex peruvianus*, and the *cortex eleutheria*, the *sal martis vulgaris*, et *sal martis Riverii*, and the *elixir vitrioli* (which may more properly be called *tinctura aromatica, cum oleo vitrioli*) are excellent remedies, and proper *restoratives* for the purpose we are now pursuing.

§ 2126. I will only add, that these and the other medical INSTRUMENTS, which have been set before you, are only to be used when they are wanted.

§ 2127. I shall conclude this lecture with observing a few things in relation to persons bathing their bodies in *water*, warm or cold; because a bath (of one sort or other) must be reckoned among the remedies proper for the cure of some diseases.

§ 2128. I. As to bathing in *warm water*, it deserves your consideration, that it cleanses the surface of the body from any filth adhering to it.

That it relaxes the vessels, opens the pores of the epidermis, and is *proper* for persons whose muscular fibres and vessels are rigid, and whose blood is spissid; or who are habitually costive.

But it is *improper* for persons whose vessels are lax, whose pulse is feeble, spirits low, flesh flabby, and whose nerves are weak, to use a common expression.

§ 2129. Weak nerves and strong nerves are expressions pretty frequent; but they need a little explanation.

By a person of *weak* nerves, I understand one whose muscular fibres and vessels, in comparison with another of like age and bulk, are weaker, or whose quantity of nervous fluid is less, or whose spirituous parts of that fluid are fewer and more dilute. And *vice versa*, as to a person of strong nerves.

§ 2130.

§ 2130. Since the nerves, strictly speaking, are neither *distractile* nor *contractile*, the characters of strong or weak are not applicable to them.

§ 2131. II. Bathing in *cold* water is often of great efficacy for the cure of some chronical distempers.

It not only cleanses the body, but it shuts or closes for a while the pores of the skin, straitens or contracts all the vessels in the exterior superficies of the body, renders the motion of the blood through the arteries, in or near that superficies, *slower* for a while; and during that time quicker and stronger through its interior vessels, and the external heat less.

§ 2132. Thus for a while cold bathing stops the excretion by perspiration.

But then, soon after the pressure of the cold water is over, the blood is with an augmented force propelled to the exterior superficies of the body; the heat returns in a greater degree; the contracted force of the muscular fibres and vessels is increased; and all the vital functions are performed with greater vigour.

All the muscles are strengthened; and the insensible perspiration augmented.

This is evident from reason and experience.

§ 2133. Bathing in cold water is a proper remedy for persons whose muscular fibres and vessels are lax, flesh flabby, whose pulse is weak, with an habitual chilliness, and lowness of the spirits, and who are subject to catch cold.

§ 2134. It has often proved very beneficial to *paralytic*, *hysteric*, and *hypochondriac* patients; and in all cutaneous distempers: and it is proper for children that have the rickets, or are weakly.

§ 2135. But the cold bath should not be the first remedy in chronical diseases produced by a viscid

viscid or glutinous quality, or for persons who have long been under obstructions, &c.

The morbid quality of the blood should first be removed by proper medicines; and then the cold bath may be used with double advantage.

§ 2136. It deserves consideration, that bathing in cold water is very improper for persons whose fibres and vessels are rigid; and improper, when any of the viscera are in a morbid state, and therefore improper in phthifical cases.

§ 2137. I may add, that bathing in *salt* water is abundantly more efficacious in some distempers, particularly the cutaneous; and against the effects of the bite of a mad dog; and for the cure of some recent dropsies. *N. B.* Those who live remote from the sea, may make a salt water bath at home by dissolving a sufficient quantity of sea salt in river water.

END of LECTURE XVII.

L E C T U R E XVIII.

On the several Diseases incidental to human Bodies.

I. On Fevers ; viz. 1. *Intermitting Fevers.* 2. *Remitting Fevers.* 3. *Continual Fevers.* 4. *Inflammatory Fevers, Non-ruptive and Eruptive.*

§ 2138. V. I SHALL in the next place treat on the several DISEASES incidental to human bodies.

§ 2139. These may be divided into the following general classes, viz.

1. Those which happen to *adult* persons of *both sexes.*

2. The diseases of *infants* and *children.*

3. The diseases peculiar to *females.*

§ 2140. I. I shall consider the diseases which are common to *adult* persons of both sexes. And these may be distributed into two sorts, viz. 1. *Internal*, in which the internal parts of the body are principally affected.

2. *External* ; when some pustulary *eruptions*, or *spots*, or *inflammation*, or *tumours*, or *ulcers*, happen on the exterior *superficies* of the body.

§ 2141. 1. I begin with the *internal* diseases. And these may be divided into two classes, viz. 1. The *acute* ; by which I mean those that are attended with danger, and come to a period, or finish their course in a few days, as many *fevers* do ; or in about three or four weeks, as the *small-pox*, *miliary fever*, &c. 2. The *chronical*, which continue a long time, subsisting several months, or years, as the *scurvy*, *gout*, *melancholy*, &c.

§ 2142.

§ 2142. I shall begin with *acute* diseases.

The chief of these are; 1. *Fevers*. 2. *Asthmas*. 3. The *Bilious Choleric*. 4. The *Hysterical Choleric*. 5. The *Iliac Passion*. 6. The *Cholera Morbus*. 7. The *Apoplexy*. 8. The *Lethargy*. 9. The *Coma Somnolentum*. 10. The *Coma Vigil*. 11. The *Carus*. 12. The *Catalepsis Acuta*. (I add the epithet *acuta* to it, because there has been a catalepsy which several times returned on the patient, and that I would call a *chronical* catalepsy, for the same reason that I call the *gout* a *chronical* distemper.) 13. Fits of the *Stone*. And 14. The Suppression of *Urine*.

§ 2143. I. And first of *FEVERS*; because these are the most frequent, and attended with great danger.

§ 2144. A *FEVER* is an *acute* distemper, in which there are symptoms that resemble some *effects* which fire produces in substances combustible.

It is called in the Greek πυρετός, from πυρ, the Latin word for which is *ignis*, and the English word *fire*.

§ 2145. The description I have given you is comprehensive of all sorts of fevers. It includes not only those which are known by a *great heat* of the body, and *quickness* and *strength* of the pulse; but also those in which the external heat is rather less than in time of health, and the pulse sometimes not discernably quicker or stronger than in health; or if quicker, yet weaker.

§ 2146. It seems to me a mistaken notion, that a quick pulse and great heat are symptoms attending every fever, and by which it is known. For I often find fevers without them.

§ 2147. They rarely happen in *putrid*, *malignant* fevers; and if we may credit the account of medical writers of established characters, they are frequently absent in *pestilential* fevers. I therefore chuse to describe this sort of distempers in the manner

manner you have heard; because in fevers where there is no increase of the external heat, and no sensibly augmented motion of the pulse, yet there are some other symptoms resembling the effects of fire in combustible substances: particularly the *dryness* and *blackness* of the tongue; which shew a *viscid* quality of the blood; and likewise that some particles diffused in it are of a *caustic* or *burning* nature.

§ 2148. For the extremities of those capillary vessels, which make the superficies of the tongue, are as it were burnt with fire, so far as they appear *black*.

§ 2149. ALL FEVERS are produced either by INSPISSATING or by DISSOLVENT causes, *singly*, or else in *combination*.

§ 2150. Some fevers are produced, 1. By *inspissating* causes, which either render the consistence of the blood and other fluids *too thick*, or introduce a *viscid* and *glutinous* quality into it, &c.

2. Other fevers are produced by *dissolvent* causes of an *alkaline acrimonious quality*, rendering the blood and other fluids of the body *too thin*, &c. And 3dly, Sometimes fevers are produced by both these sorts of causes in combination, which therefore may be called *complex* fevers.

§ 2151. 1. I shall consider the fevers produced by *inspissating* causes. It may be impossible to enumerate all the antecedent causes of this denomination. I have considered many of them in my first volume on fevers. But it is of no great importance whether we know them or not. For how various or manifold soever they may be, yet the proximate or immediate causes of the fevers now under our consideration are *very few*; and if we know these, and how to remove the morbid *quality*, we know the right way of curing them.

§ 2152.

§ 2152. Be pleased therefore to observe, that the immediate cause of the several *species* of fevers I am now considering, is either

1. A *too great thickness* of the consistence of the blood, and of the other animal fluids, as in *ardent* fevers; or

2. A *viscid quality* of the animal fluids, which is indeed the most frequent cause of fevers; or

3dly, *Particles too bulky* for an easy circulation, and too big to be excreted or evacuated out of the body, till they have been sufficiently comminuted; as in most *eruptive* fevers received by infection.

§ 2153. But even in fevers produced by infectious *effluvia* there are not only particles formed too bulky for an easy circulation, but a *viscid* quality is also soon introduced into the blood, as in the *small-pox*, &c.

§ 2154. It appears (from what has been said) very manifest, that the CURATIVE INDICATION in all sorts of fevers produced by *inspissating* causes is to *attenuate* the blood, to render it *thinner*, and remove the *viscid* quality: and in *eruptive* fevers, where the *infecting effluvia* (by *attracting*, or being *attracted* by parts of the blood) form particles *too bulky* for an easy circulation and excretion, we must endeavour the comminution of such particles. N. B. In these fevers *æthiops mineral.* is of special service.

§ 2155. This alteration of the state and quality of the blood is the CARDINAL POINT, the chief thing you are to have in view, and to endeavour with the greatest diligence.

And from what has been delivered in the foregoing lectures, you may perceive the reasonableness and importance of the following corollaries, or *negative* RULES of practice, if I may so call them; viz.

§ 2156.

§ 2156. *Rule 1.* Where there is no excess in the quantity of the blood, *Bleeding* the patient in fevers is *improper*, and should not be advised; because in such cases it renders the blood less in quantity than it ought to be; diminishes the vital strength, when it was not too great; and introduces one of the three general causes of distempers into existence.

§ 2157. *Rule 2.* If there be no excess in the quantity of the lymphatic fluid, *Vomiting* medicines in fevers are improper, and should not be advised; because they are *evacuants*, and not of that sort of medicines which are wanted to remove *morbid qualities*; and because the violent motions and agitation both of the solids and fluids of the body, produced by *emetics*, tend to increase the *heat* and inspissation of the animal fluids, and so to prolong the fever, and render the recovery of the patient more doubtful. And further, the violent compression of the descending *aorta*, by means of the strong contractions of the abdominal muscles in vomiting, may not only occasion a much larger quantity of blood to be propelled through the ascending branches of the *aorta*, and to the extremities of the capillary arteries of the brain, and its *meninges*; but also may occasion *viscid* humours, or blood to be propelled into the *lymphatic* arteries in the brain, which may stagnate in them, and produce *inflammations*, *deliria*, *comas*, and such like direful symptoms, &c.

§ 2158. *Rule 3.* *Purging* medicines in fevers are improper, when the consistence of the blood is too thick, and when there is a *viscid* quality in the animal fluids: Because they are *evacuants*, and not the sort of medicines wanted; and because, by their operation, they carry off the thinnest parts
of

of the *lymphatic* fluid, diminish its quantity, when it ought not to be diminished; and only tend to increase the morbid quality, which we should endeavour to alter and remove.

§ 2159. *Rule 4.* *Hot stimulating* SUDORIFICS are improper in fevers produced by the morbid qualities mentioned. I say they are improper, whether they produce *sweat*, or not:

Improper, if they produce sweat, because thereby the thinner parts of the lymph will be evacuated, and the *thickness* or *viscid* quality of the fluids be increased; and the case of the patient rendered worse:

And then if such medicines should not procure sweat, they will certainly increase the motion, and *beat*, and inspissation of the blood, and heighten the fever; and can only tend to make death more certain.

§ 2160. *Rule 5.* If the heat of the body is great, and the pulse strong and quick, *blistering plaisters* are improper; because, by their *stimulus*, they will render the pulse still quicker and stronger, and increase the *beat* and inspissation of the blood: which will tend to rivet and increase the morbid qualities; on the removal of which qualities the life and recovery of the patient depend.—*Vide my Compendium, ed. 2. page 56, 57.*

§ 2161. The medicines I have here cautioned you against, are not the *medical* INSTRUMENTS to be used for the cure of diseases produced by *inspissating* causes, and depending on the morbid qualities mentioned.

§ 2162. And I can assure you, that I never make use of them for curing the sorts of fevers now under our consideration. But by proper *alterants*, through the direction and blessing of God, I have had, through a long course of prac-

tice, a happy *series* of successes in the management of persons under them

§ 2163. I shall divide fevers produced by *in-spissating* caules, viz. a too great thickness, or a *viscid* quality of the animal fluids, into three classes; viz. 1. the *intermitting*, 2. the *remitting*, and 3. the *continual*.

§ 2164. I shall first discourse on *intermitting FEVERS*. These are either *quartans*, or *tertians*, or *quotidians*.

§ 2165. And 1. Of *QUARTAN intermittents*.

A quartan intermittent is that fever which comes twice every four days, reckoning the first and the last of the four to be the fever days, and the two intermediate days as days of intermission or of freedom from the fever.

Sometimes there happen three fits of the fever in four days, and but one day's intermission; and then it is called a *double quartan*.

§ 2166. The general cause of all intermitting fevers, as I have said before, is a *viscid humour* in the blood, which assimilates divers parts of it into its own nature and quality; and that, when the assimilation is increased to a *certain degree*, produces a *febrile fit*.

§ 2167. There is a great difference in the times of the return of the febrile paroxysms in the different sorts of intermittents.

§ 2168. In single *quotidians* the fever returns every day; in single *tertians* only every other day; and in single *quartans* only every third day: and I apprehend two reasons may be assign'd for this difference; viz.

1. There is a *greater* quantity of *viscid humours* in those persons who have *quotidians*, than in those who have *tertians*; and a greater quantity

tity in those who have *tertians*, than in those who have *quartans*; and the assimilation of the parts of the blood into a *viscid* quality is quicker in those that have *quotidians*, than in those that have *tertians*; and quicker in those that have *tertians*, than in those that have *quartans*.

2. There is reason to apprehend, that, in *different* sorts of *viscid* humours, their component parts cohere with *different degrees* of *tenacity*; and that as, in one sort of them, the cohesion of the *viscid* particles may be much stronger than in others; so the particles of such a *viscid* humour may be longer in assimilating so many parts of the blood into their own kind, as are necessary to produce the fit of a fever.

§ 2169. We may easily understand, that the more firmly the particles of the *viscid* humours cohere together, the more difficult it must be by medicines to dissolve their union, and remove the *morbid* quality.

§ 2170. The consideration of these things may lead us into the reason, why in *quartan agues* there are such long intermissions, and why the cure of them is so difficult; and will encourage us to hope, that a *double* quartan may more easily be cured than a *single*.

§ 2171. It deserves notice, that in persons afflicted with intermitting fevers, the action of the heart and arteries, in the *intermissions*, is less strong than it ought to be, as we may infer from their pulse being then weaker than in the time of perfect health.

§ 2172. 2. TERTIAN *intermittents*, as you have heard, are those whose febrile paroxysm returns every other day.

§ 2173. The difference between this sort of intermittents and the former seems to be this; viz. the particles of the *viscid* humours in this do not

cohere so tenaciously as in that, but are quicker in assimilating parts of the animal fluids into their own quality.

§ 2174. 3. As to QUOTIDIAN *intermittents*; there is a great variety; some have only one fever fit in twenty-four hours; some have two; and some more.

§ 2175. Some have the fever fits twelve hours, and the intermissions twelve hours; others have the fever fits longer, and the intermissions shorter; and, *vice versa*, I have known some treble quotidians.

§ 1176. There is likewise a great variety of different symptoms incidental to different persons under intermitting fevers, and in different years. I may therefore observe, that quotidian intermittents are commonly the most dangerous, as they approach the nearest to CONTINUAL FEVERS; and are apt to become such from the abundance of *viscid* humours in the blood of persons under this sort of intermittents.

§ 2177. But in every kind of these *intermitting fevers*, the curative indication is one and the same, viz. to alter and destroy the *viscid* quality that produced them, and on which they depend. This is the grand point in view.

§ 2178. We should, for curing this sort of fevers, have immediate recourse to suitable ALTERANTS. I do not apprehend it needful to make any EVACUATION previously to the prescribing *alterative* medicines, on the account of the nature of these fevers.

§ 2179. Indeed in some *lymphatic* constitutions, and in *leucophlegmatic* habits of body, attended with loss of appetite, it is sometimes advisable to direct one gentle dose of some *aloetic purgative*, e. g. *pil. ruf. vel tinct. sacrae*, a little to cleanse and strengthen the *primæ viæ*, the stomach and intestines;

intestines; but not to make any considerable evacuation by stool, which could not contribute much to the cure of the patient. And to rectify some disorders of the stomach, and enable it to bear other remedies, such a gentle dose of an *aloetic* purgative as I have mentioned, may be of service.

§ 2180. I proceed now to consider some proper alterative medicines for patients under intermitting fevers, produced by inspissating causes; and,

§ 2181. 1. For the cure of *quartan intermittents*, I need not say, that the *Peruvian* bark is an excellent, tho' not infallible remedy.

§ 2182. It deserves our consideration, that the bark cures intermitting fevers, by *altering* the state of the blood, by freeing it from its *viscid* quality, and rendering it duly *thin*, and easy to pass through the minutest sanguine vessels; and not by increasing the sensible evacuations, the number of the stools, or quantity of the urine; nor by any sensible diminution of the quantity of the animal fluids.

§ 2183. And on this account it is, that the bark has been of great service for the cure of MORTIFICATIONS arising from internal causes.

§ 2184. The bark, as I have observed, does not increase the *sensible evacuations*, unless, when *overdosed*, in some constitutions, it has acted as a purgative. I say, except in an overdose, it neither *sweats* nor *purges*, nor makes any *sensible* or considerable increase of the urine; therefore, in its common way of operation, it acts purely as an alterative medicine.

§ 2185. Indeed, a recovery of the *insensible* perspiration (diminished by morbid qualities), I say, the recovery of the insensible perspiration to its natural healthy quantity may be the happy consequence of the alteration made by it in the blood; which may lead us to think, that the bark is some-

times a proper remedy, when the evacuation by the insensible perspiration is too little.

§ 2186. In diseases which are produced purely by a *morbid* quality in bodies, where there is no *excess* in the quantity of the fluids, there is no reason that I know of for us to endeavour the augmenting any sensible evacuation.

§ 2187. If the cohesion of the particles of *viscid* humours be destroyed; if particles before *too bulky* for an easy circulation and excretion, be sufficiently comminuted; they may easily pass through the common *excretory* vessels, without any manifest increase of the sensible evacuations. It is certain they do so in intermittents cured by the *bark*, and by many other remedies.

§ 2188. Let me now observe to you a few things; *viz.* 1. That when you meet with patients of a *leucophlegmatic* habit of body, afflicted with tertians or quartans, it may be proper to mix the *rad. serpent. Virg.* or *coccinella*, or both, with the *bark*; or to add some *chalybeate* salt.

§ 2189. 2. That if your patient, by your direction, has regularly taken an ounce of the bark in an intermission, and yet has the fever return, it may be proper to give the bark again, with the addition of *ziii.* vel *ziiii.* of *æthiops mineral*.

§ 2190. 3. That if the bark should fail this way also, I would try the *cortex eleutheriæ per se*, and give it in the same manner that the bark is given.

§ 2191. If the patient be *asthmatical*, I would order *millepedes* ppt. with the *febrifuge* barks.

§ 2192. But quartans may be cured without the bark: I will give you one example of this.

Hist. 1. MR. WILLIAM LITTLE, aged 39 years, desired my advice; he had been afflicted with a *quartan* ague seven or eight months, attended with a violent cough, and want of appetite. He had
taken

taken a great deal of the bark. I advised him to take a decoction of figs; also burdock tea.

Oct. 3. 1748. I prescribed for him the following remedies; viz.

℞ Ol. junip. gut. xxx. ol. nuc. moscat. gut. vi. sp. sal. ammoniac. ℥ss. et f. *mistura*, cujus capiat gut. xx vesperi et mane in ℥iv. aq. fluvial. cum vin. mont. mistæ, absente paroxysmo, phialâ prius agitatâ.

℞ Antimon. diaphoret. sal. prunell. ā ā ℥ss. sal. martis gr. vi, aq. menth. vulg. simpl. ℥ivss. aq. menth. spirituos. ℥ss. syr. balsam. ℥i. et f. *mistura*, cujus capiat cochl. iii. horâ undecimâ matutinâ, et horâ quintâ post meridiem, phialâ prius agitatâ, superbibendo haustum liquoris cujuslibet diluentis.

He had only one feeling of the fit after he went into this method. He took two bottles of the drops, and two of the julep; and had no return of his disorders.

§ 2193. 2. As for TERTIANS, they are to be cured by the same remedies which are proper against *quartans*.

§ 2194. *Hist.* 2. For a woman, aged 34 years, afflicted with a *tertian* intermittent, I prescribed as follows; viz.

℞ Ol. junip. ℥i, ol. nuc. moscat. gut. v. sp. sal. ammoniac. ℥ss. et f. *mistura*, cujus capiat gut. xx. in haust. aq. puræ, et vin. alb. mist. vesperi et mane, absente febre, et phialâ prius agitatâ.

℞ Camphor. pulv. ℥ii. sp. vin. rect. ℥vi. aq. hungariæ ℥ii. sp. sal. volat. oleosi gut. xl. m. pro *footu*, quo palmæ et carpi, et plantæ pedum, bis, terve in die foveantur.

These medicines were effectual for her cure.

§ 2195. 3. As for *QUOTIDIAN intermittents*; *saline* medicines, or *neutral salts*, in *draughts* or *juleps*, sometimes with, sometimes without *diaphoretic antimony* or *cochineal*, I have often found sufficiently effectual.

§ 2196. Sometimes I prescribe a medicine to be taken *præsente vel absente febre*; sometimes I order a julep or mixture to be taken *præsente febre*, and a different sort of medicine to be taken in the time of intermission; e. g. (*Hist.* 3.) I prescribed for a woman aged 27 years, the following *julep*; which was repeated, and freed her from a *quotidian intermittent*.

R Antimon. diaphoret. sal. absinth. ā ā ʒfs. lapid. contrayerv. ʒi. aq. lact. alexit. ʒii. aq. menth. vulg. simpl. ʒifs. fyr. è succo limon. fyr. balsam. ā ā ʒii. sp. nitr. dulc. gut. xxx. m. f. JULEPUM cujus capiat cochl. ii. horis tertiis, præsente vel absente febre, phialâ prius agitatâ.

§ 2197. *Hist.* 4. For another woman, aged 36 years, I prescribed the following mixture, which being once repeated, was effectual to free her from her fever:

R Antimon. diaphoret. sal. absinth. coccinell. ā ā ʒii. aq. lact. alexit. ʒiv. aq. puleg. ʒiii. fyr. è succo. limon. fyr. balsamic. ā ā ʒfs. sp. nitr. dulc. gut. xl. et f. MISTURA, cujus capiat ʒi. omni trihorio, absente febre, et phialâ prius agitatâ, superbibendo ʒiii. vel iv. pseudo-theæ cum radice bardanæ majoris pptæ.

§ 2198. *Hist.* 5. For a female child, aged 14 months, afflicted with a *quotidian intermittent*, and a violent cough, I prescribed the following remedies, which were effectual to her recovery, viz.

R Pulv.

R Pulv. è chel. cancr. comp. gr. xv.

Antimon. diaphoret. gr. x.

Musc. corallin. ppti, sal absinth. ā ā gr. iv.

Aq. lact. alexit. ℥iss. syr. è succo limon.

Syr. balsamic. ā ā ℥ii. et f. MISTURA, cujus capiat cochl. fs. horis tertiis vel quartis, præfente vel absente febre, phialâ prius agitatâ.

R Syr. violarum, ℥ss. sacchar. cand. alb. ℥i. ol. amygdal. dulc. ℥iii. et f. MISTURA pectoralis; cujus capiat aliquantillum urgente tussi.

R Camphor. cinab. nativ. ā ā gr. v.

Thuris ℥i. ol. absinth. gut. ii. m.s. a. et super alutam extendatur, ut fiat emplastrum scrobiculo cordis applicandum.

§ 2199. II. We now proceed to consider those REMITTING fevers which are produced by *inspissating* causes.

§ 2200. The febrile symptoms of *heat, thirst, &c.* in this sort of fevers do sensibly abate and increase by turns. In some persons the *remissions* are greater, and in others less; and in some they are of a longer, and in others of a shorter duration: In some the remissions happen at regular periods, as every day about the same hour; in others differently.

§ 2201. The reason of the remission seems to be this, *viz.* by the force of the action of the vital organs (especially of the heart and arteries) the cohesion of the particles of some of the *viscid humours* in the arterial blood are in some measure abated, and the morbid quality diminished, whereupon follows an abatement of the fever, and its symptoms; but that other *viscid particles* in the series of sanguine veins, at the same time, are assimilating more parts of the blood into their own quality

quality and bulk, and thereby produce an increase of the fever again.

§ 2202. I may observe to you, that in this kind of fevers the *viscid* particles are quick in assimilating parts of the blood into their own nature. Hence it is, that persons afflicted with them are in great danger of death: and such is the cause of danger in *continual* fevers; but in them the danger is greater, as the morbid quality is greater in degree.

§ 2203. The CURATIVE INDICATION in fevers of this sort (and indeed of continual, and of all others produced by *inspissating* causes, and depending on too great a *thickness* in the consistence of the blood, or on a *viscid glutinous* quality, or on too bulky particles diffused in the blood) is by suitable ALTERANTS to remove the *morbid quality*; by proper *dissolvents* and *attenuants* to reduce the animal fluids to their natural thinness; to comminute and disunite particles too big, or which cohere together, when they should not.

§ 2204. And if this *grand* INTENTION be accomplished, the fevers cease, and health returns; and the superfluous, excrementitious, and *morbidic* particles will pass out of the body through the common *excretory* vessels, whether we think about EVACUATION or not, &c.

§ 2205. I need only further observe here, that *remitting* fevers are to be cured by the same *alterative medicines* and methods, which are effectual for the cure of *continual* fevers produced by *inspissating* causes, and shall refer what I have to say about the proper remedies till I have considered them, which I shall do in the next place.

§ 2206. III. Of CONTINUAL FEVERS; by which I mean those which have neither *intermission* nor *remission* till the declination of them, when health is returning to the patient.

§ 2207.

§ 2207. These fevers may be divided into two species; viz. 1. *Ardent*. 2. *Inflammatory*.

§ 2208. I. *Ardent fevers*: These may be known and distinguished by the extreme *heat* of the patient's flesh; by a quick and strong pulse, great thirst, dryness of the skin, and rigidity of the vessels, and a freedom from those symptoms which are peculiar to *inflammatory* fevers. They are attended with some or other, more or fewer, of the following symptoms; viz. *coldness*, *shiverings*, *hottings*, *vomitings*, in the beginning: *Anxiety*, great *lassitude*, *restlessness* of the body, *dryness*, *roughness*, *brownness*, or *blackness*, of the tongue; *quickness* and *difficulty* in the respiration; *cough*, *delirium*, *watchfulness*, *coma*, and sometimes *convulsions*.

§ 2209. Fevers of this sort seem most frequently to arise from a sudden *inspissation* of the blood and lymph, produced by violent exercise, or too much labour, burning heat of the sun, or excessive heat and extreme dryness of the air.

§ 2210. I may here observe, that as the heat of the blood in these fevers is excessive, so the inspissation of the blood increases very fast: Hence the danger of the patient is exceeding great, and death is often the event on the third or fourth day of the sickness; and the patient seldom survives the seventh, unless the fever be removed, or greatly abated before, by proper remedies.

§ 2211. It must likewise be remembered, that, in fevers of this kind, the muscular fibres and animal vessels are commonly *rigid* or *too dry*.

§ 2212. The consideration of these things may convince us, that *refrigerating dissolvents* are the proper *alterants* to remove the morbid quality, to abate the febrile heat, and recover the blood to its

its natural thinness; and I must observe, that *mollients*, *relaxants*, and *diluent*s, are needful to take off the *rigidity* of the vessels, and free them from that morbid quality, *i. e.* from their dry *intemperies*.

§ 2213. NITROUS and ACID medicines have been most happily effectual in curing those fevers, *e. g.* *nitrum*, *sal prunell.* *tartarum vitriolatum*, *cremor tartari*, *sp. vitrioli*, *sp. vitrioli dulc.* *sp. nitri dulc.* *julapium purpureum Bateanum*, *decoctum coccin.* *Fulleri*, *decoctum ad filim Bateanum*, *acetum*, *succus limonum*, et *succus aurantiorum*.

For examples of this sort of fevers I refer you to my 2d Vol. on Fevers, chap. 18.

§ 2214. But in the use of refrigerating, dissolving *alterants*, we must watchfully observe the variations of the pulse, and take care that it does not sink *too low*; and I may say, that the mixing a small proportion of some suitable warm ingredients with the *cooling salts*, is, in many cases, very serviceable. I have often found it so.

§ 2215. II. INFLAMMATORY FEVERS are in the next place to be considered; and these may be distributed into two classes, *viz.*

I. GENERAL; in which many parts of the body are in a special manner the seat of the *inflammation*; such as the *small-pox*, *measles*, *scarlet fever*, &c.

II. PARTICULAR; in which some one part only, or chiefly, is inflamed; such is the *pleuritic fever*, &c.

§ 2216. I. Of the *general inflammatory fevers*. But in order to have right ideas of these diseases, it is necessary to know what an inflammation is.

§ 2217. AN INFLAMMATION then is an obstruction of some *sanguine* or *lymphatic* vessels, or of both,

both, attended with *heat*, *tumour*, and *pain* of the parts affected.

§ 2218. When *viscid* humours, diffused in the blood, or particles *too bulky*, move with difficulty along the capillary vessels; and fresh quantities of blood are propelled from the heart faster than the preceding quantities can go into the veins; then the capillary sanguine arteries must become obstructed, and of necessity dilate and tumify; and the extremities of the circumjacent nerves be compressed, so as to cause uneasy or painful sensations.

§ 2219. When any of the animal vessels are brought into this state (§ 2219.) they may be said to be obstructed and *inflamed*; and the *viscid* quality of the blood, which occasioned the obstructions, may be called *inflammatory*.

§ 2220. Inflammations may indeed be produced by various *external* causes, *e. g.* by *contusions*, *wounds*, *burns*, &c. but these are not the subjects of our present consideration. I here treat of those *inflammations* which are produced by internal causes.

§ 2221. And, Gentlemen, it deserves your notice and consideration, that an inflammation may terminate three different ways, *viz.*

1. The obstructing matter may either spontaneously, or by proper attenuating *alterants*, become more thin and liquid, and thereupon pass away, partly through perspiratory and other excretory ducts, and partly onwards to the lymphatic and sanguine veins; and so again into the circulating blood. *Or,*

2. The obstructing matter in the part inflamed may *suppurate*; that is, corrupt, putrify, and turn to that humour we call *pus*: *Or,*

3. The obstructing matter may put a total period to the circulation and motion of the fluids through

through the vessels affected; that is, it may end in a *mortification*; which is an abolition of motion and heat in the parts mortified.

§ 2222. One or other of these events (§ 2221.) happens in all *inflammatory* fevers. The first happens to those that recover from the *measles*, *scarlet fever*, &c. The second to those that recover from the *small-pox* of a kindly sort, and from the *plague* attended with *buboes*, &c. And the third to many that die under *inflammatory* fevers.

§ 2223. GENERAL INFLAMMATORY FEVERS may be divided into two kinds; viz.

1. The *Non-eruptive*.
2. The *Eruptive*.

§ 2224. 1. THE NON-ERUPTIVE: Of this species are the *rheumatic* fevers. In these fevers the *lymphatic* arteries and veins are commonly the *vessels* obstructed and dilated; and the distention of these frequently is the occasion of the *rheumatic* pains, by their pressure against the extremities of the nerves affected. And the pains are more or less acute, according to the degrees of that pressure. But sometimes acrid or solid hard particles are excreted, and brought to immediate contact with the extremities of the nerves affected.

§ 2225. I reckon in *rheumatic* fevers those parts under a sort of inflammation, which are the seat of the pain; because of their pain, great heat, and swelling: And I call those fevers *inflammatory*, because they depend on the like *viscid* quality which subsists in all other *inflammatory* fevers.

§ 2226. Here I would observe, that as a *viscid lymph* seems to be the obstructing matter, and immediate cause of the pain and swelling in the parts affected in rheumatisms, so it appears to be the reason why *rheumatic swellings* never suppurate; those humours only suppurating where some *sanguine vessels* are obstructed and inflamed; or
where

where some *red* parts of the blood have been impelled into lymphatic vessels, and stagnate in them.

§ 2227. These *rheumatic* fevers are distinguished from others by their *symptomatical* pains, chiefly affecting the *arms, shoulders, hips, thighs, knees, and legs*: but they may also affect any other parts of the body, where there are *lymphatic* vessels.

§ 2228. For, by the expression *rheumatic pains* I include all pains which are produced by the same cause, and affect the *same series of vessels*: that is, those pains which are occasioned by a *viscid lymph*, obstructing and distending some *lymphatic* vessels; whether they happen in the limbs, or in the sides of the *abdomen*, or in the *back*, or in any of the *viscera*, &c.

§ 2229. There is a manifest difference between *inflammatory* fevers of this kind (§ 2228.) and others, viz. in these the *lymphatics* are the vessels *obstructed, distended, and tumified*: whereas, in the others, some *sanguine* vessels are obstructed and distended: or else some *lymphatic* vessels have *red globules* of blood impelled into them from the *sanguine* arteries; and then the pains are commonly more acute and pungent, and become *pulsative* and *throbbing*, if the obstructing matter suppurates.

§ 2230. And therefore, when I meet with a fever attended with such pains as signify that the *lymphatic* vessels, and not the *sanguine*, are the vessels obstructed and tumified, then I call the fever *rheumatic*, tho' the limbs should be perfectly easy.

Examples of *rheumatic fevers* you have in my 2d Vol. on *Fevers*, chap. 19.

§ 2231. 2. ERUPTIVE FEVERS. These are another species of general *inflammatory* fevers, and their *symptomatical* inflammations are commonly pro-

duced on the exterior *superficies* of the body, in the extremities or endings of the lymphatic arteries, immediately under the *epidermis*.

§ 2232. Sometimes inflammations are also produced in the extremities of the capillary *sanguine* or *lymphatic* arteries, situated in the membranes of the INTERNAL superficies of the body, which is the case in the *small-pox*, when *variolous* pustules are formed on the membranes of the *mouth*, *æso-phagus*, *stomach*, and *intestines*.

§ 2233. In some *eruptive* fevers the matter excreted to the exterior superficies of the body suppurates, as in a kindly sort of the *small-pox*, &c. But in others, it partly transpires through the pores of the *epidermis*, and partly returns into the current of the circulating fluids, leaving the remainder dry, when no suppuration ensues; which is the case in the *measles*, *scarlet fever*, &c.

§ 2234. The several *species* of *eruptive* FEVERS seem to be produced by sorts of particles of matter *specifically* different from each other; because each sort of the *morbific* particles produces its own fever, *e. g.* *variolous* particles produce *not* the *measles*, but the *small-pox*; and so *morbillous* particles produce *not* the *small-pox*, but the *measles*, &c.

§ 2235. The principal *eruptive* FEVERS are these following, viz.

1. The Scarlet Fever.
2. The Measles.
3. The Small-pox.
4. Chicken-pox.
5. The Spotted Fever.
6. The Miliary Fever. And
7. The Erysipelas.

§ 2236. 1. THE SCARLET FEVER. This is known and distinguished from all others by its peculiar eruption on the skin, which, on the first or second day

day of the disease, appears to have red spots, verging towards a *scarlet* colour; the spaces between appearing as in the time of health.

§ 2237. These spots grow broader and broader, and become more numerous; and in two or three days the skin grows rough, and gradually falls off in scales, some larger, some lesser.

§ 2238. 2. The MEASLES. This is likewise known by its peculiar eruption, appearing on the fourth or fifth day of the sickness, in the form of very minute red spots, which at first look like flea-bites, increasing in number, running many of them together, and somewhat elevating the *epidermis*, first chiefly on the forehead and face, then on the breast, arms, legs, &c.

§ 2239. This fever is attended with a cough, and a watery humour running from the eyes and nose, &c.

§ 2240. 3. The SMALL-POX. This is a disease consisting of four very remarkable and different states, viz. 1. The *febrile*. 2. The *eruptive*. 3. The *suppurating*. And 4. The *scabbing*.

§ 2241. This fever comes on with pain in the *head, back, pit of the stomach* and sometimes in other parts of the body, attended with heat, thirst, and sometimes with stomach sickness; and these *symptoms* are followed with an eruption of *pustules*, suppurating in their nature: and by this quality of them the distemper is distinguished from the measles, miliary fever, &c.

§ 2242. The *eruption* in the different sorts of the small-pox happens on different days of the sickness, e. g. on the first, or second, or third, or fourth.

And the sooner the eruption appears, the more dangerous is the disease.

§ 2243. It is sometimes difficult on the first and second days of the eruption to know certainly the

variolous pustules, merely by their appearance, from other small red pustules, e. g. such as are vulgarly called a rash.

But if we find that the eruption was preceded by a fever, with pains in the head, back, &c. we may conclude that the distemper is the small-pox.

§ 2244. 4. The CHICKEN and the SWINE pox are *pustules*, which appear *whitish*, much like the *variolous*, when in full maturation: the lesser sort of pustules are called the *chicken pox*, and the larger sort are the *swine pox*.

§ 2245. These pustules are generally few in number, and neither preceded by, nor attended nor followed with symptoms of much sickness, or of any threatening signification.

§ 2246. We may know this disease from the *small-pox* by observing, that the bases of these pustules are of a small faint and dull red colour; whereas the bases of the pustules in the small-pox are of a stronger and more lively red, till their maturation is perfected.

And it may put us out of doubt, when we find that these pustules were not preceded by the peculiar *variolous* symptoms (§ 2244.)

§ 2247. It is my opinion, that these pustules are not properly suppurating; because from their first appearance (so far as I have had opportunity of observing them) they have seemed replete with the same whitish humour, and only to increase a little in bulk; and have not that smarting or pain which constantly attend suppurating pustules.

§ 2248. 5. The SPOTTED FEVER is a very acute disease, constantly attended with *petechia*, deep or superficial, without any other eruption; and by this symptom alone it is distinguished from all other fevers.

§ 2249. 6. The MILIARY FEVER is a disease of many days continuance, and is known by its peculiar eruption, which most frequently happens about the tenth or eleventh day of the sickness.

§ 2250. The *symptoms* peculiar to this fever, antecedent to the eruption, are a pulse quicker and weaker than in health; great oppression of the *thorax*; pain of the head; dejection of the spirits, and sighing.

§ 2251. The *eruption* consists of a multitude of very minute pustules, about the bigness of millet-seeds, on which account it is called the miliary fever. These are often clear, and without any redness or colour, and are replete with a very thin *aqueous* humour, which, as I apprehend, is excreted chiefly at least from the nervous *tubuli*.

§ 2252. This I call a *simple* miliary fever.

§ 2253. But there is another sort, in which the minute pustules appear *reddish*, more or less; and with this kind of miliary pustules the pulse is commonly strong, as well as quick, the tongue often dry, and the febrile heat greater.

§ 2254. This (§ 2252.) I call a *complex* miliary fever. I may observe, that both sorts are attended with the oppression of the thorax, sinking of the spirits, and sighing. For the cure of these fevers, besides alterative medicines, cordials are very necessary; and a gentle diaphoresis is promoted to be throughout the sickness.

§ 2255. 7. The ERYSEPELATOUS fever is a disease known by its peculiar eruption, viz. of pustules, which commonly are small, and pretty near together; replete with a thin watery humour, and attended with great heat, pain, redness, and a SWELLING of the part where this eruption happens; and sometimes of the parts adjacent.

§ 2256. This distemper is commonly called an *Erysepelas*, or *St. Anthony's Fire*.

§ 2257. Thus I have shewed how the several *eruptive* fevers may be known; and distinguished the one from the other. How they are to be cured I shall shew you in its proper place.

§ 2258. II. The next subject for our consideration is that of particular inflammatory fevers; but this I must defer to the next Lecture.

END of LECTURE XVIII.

LECTURE XIX.

Of PARTICULAR INFLAMMATORY FEVERS. I.
The Phrensy. 2. *The Quinsy.* 3. *The Peripneumony.* 4. *The Pleurisy.* 5. *The Peraphrenitis, or Inflammation of the Diaphragm.*

— PUTRID FEVERS.

— INTERMITTING FEVERS.

— ASTHMAS.

— *The* BILIOUS COLIC.

— HYSTERIC COLIC.

— SLEEPY DISEASES, *viz.* Apoplexies; Lethargies; *the* Coma Somnolentum, Coma Vigil, and Carus.

— *The* CATALEPSY.

— FITS of *the* STONE.

— SUPPRESSION of URINE.

§ 2259. II. OF PARTICULAR INFLAMMATORY FEVERS; in which some *one* part only, or chiefly, is inflamed.

§ 2260. These are manifold, and may be as various as there are different parts of the body *capable* of being inflamed. But as they are all to be cured by the same sorts of remedies, *viz.* by such *alterative* MEDICINES as may remove the *viscid* quality of the blood which produces them, and on which they depend; I shall only describe the principal of them, so that you may know them. And the chief of them are these following, *viz.*

§ 2261. I. The PHRENITIS, or the *phrensy* fever. This is that continual acute fever which begins with extreme heat, and a violent *internal* pain of the head, and produces REDNESS in the face and eyes, a FIERCENESS of the countenance, an inflam-

mation of the membranes or vessels of the greater brain, *watchfulness*, disturbed sleep, *respiration* large, and not frequent, and a hard pulse. By these symptoms, and their being followed by a continual *delirium*, or depravation of the senses, with *outrageousness*, may this fever be known and distinguished from others. This for the most part is mortal, especially if the *feces alvinæ* are *white*, and there be a *black cloud* in the *urine*.

§ 2262. 2. The QUINSY is that fever which produces an inflammation and tumour of the internal parts of the throat, as the *pharynx*, the *larynx*, and muscles at the root of the tongue; known by *pain* in the parts affected, and a difficulty of *swallowing*, which sometimes increases to a total incapacity of getting even any liquid into the stomach, &c.

§ 2263. 3. A PERIPNEUMONY; which is that fever which produces an inflammation of the *sanguineous* and lymphatic arteries of one or both lobes of the lungs; known by an heavy pain in the parts affected, with a dry cough in the beginning, a difficulty of breathing, a hot breath, and great anxiety, with a *small*, *soft*, and *unequal* pulse.

§ 2264. 4. PLEURITIS VERA, or what is called a *genuine pleurisy*. This is that fever which produces an inflammation of one part or other of the MEMBRANE (which covers the ribs next the cavity of the *thorax*) called the *pleura*: It is known by an extremely *pungent* or *stitching* pain in the part affected, which most frequently happens in the side; but may happen in that part of the same membrane next the back. It is attended with a pulse *full* and *strong*, *hard* and *quick*; a difficult *respiration*; and a vexatious cough, with the spitting a sort of *bloody* matter.

§ 2265. Here I may observe, that in what some call the *pleuritis notba*, or *bastard pleurisy*, there is an inflammation likewise of the *pleura*; which we may infer both from the pain and the quality of the humour expectorated. But this kind results partly from *dissolvent*, and partly from *inspissating* causes. I say it proceeds partly from *dissolvent* causes, as we may conclude from the moderateness of the febrile heat, and the *weakness* and *softness* of the pulse; but yet it is a true *pleurisy*, as well as this now under our consideration. And therefore I do not distinguish a PLEURISY into *vera et notba*, because they are terms which convey to me no positive [or determinate] ideas of the state of the fluids or solids of patients under this or the other sort.

§ 2266. On this account (§ 2265.) I hope to be excused, for calling that a *simplex* (or *simple*) *pleurisy* which has been denominated *pleuritis vera*, because it results only from one sort of causes, viz. the *inspissating*; and for calling the other the *complex pleurisy*, on the account that it is produced partly by *inspissating*, and partly by *dissolvent* causes: which names or characters may be useful to preserve in your thoughts the peculiar and different nature and quality of the two kinds of *pleurifies*; and to keep us from running into a wrong way for curing them.

§ 2267. There may likewise be two sorts of peripneumonies; one purely from *inspissating* causes; and the other partly from them, and partly from *dissolvent* causes, as in the *pleuritis notba*.

§ 2268. This (§ 2267.) I would call a *complex peripneumony*, which may be distinguished from the other by the pulse being weaker and softer than in that, and the febrile heat less.

§ 2269. Here I must observe, that bleeding patients under a *complex pleurisy* appears to me very

pernicious. For in the year 1728, that disease was very much for some weeks in Essex; and I do not remember to have known or heard of any who were blooded that recovered, although they were young. I also apprehend, that bleeding persons under a *complex* peripneumony may be as hurtful.

§ 2270. In the *pleuritis vera* I always bleed; and when I was ill of that distemper, I twice ordered eight ounces of blood to be taken from me.

§ 2271. But a peripneumony is not near so frequent as the pleurisy. It is a disease which rarely happens; and there is this reason for it, *viz.* all the vessels of the lungs are so constructed, as to be most easily distended and contracted to subserve the use of the lungs in respiration; which consists in a continual alternate distention and contraction of them. But in the other parts of the body, e. g. the *pleura*, &c. it is otherwise.

§ 2272. 5. A PARAPHRENITIS; which is that fever which produces an inflammation of the *diaphragm*; known 1. by a most extreme pain in the part affected, which is greatly increased by the *inspiration of the air in breathing*; 2. by *coughing, sneezing, vomiting, squeezing-in of the belly* when going to stool, or making water; 3. by a *short, quick, and suffocative respiration*, performed only by the *thorax*; the *abdomen* being in a manner *inactive*; 4. by the *drawing-in* of the *hypochondres*, or sides adjacent to the *diaphragm*; and, 5. by the *coming-on* of a continued *delirium*.

§ 2273. As to other fevers of this class (§2260.): the inflammation of any particular part of the body is known by considering the seat of the pain; if we find out that, we know thereby what part is inflamed. But skill in *anatomy*, or a knowledge of the structure of human bodies is necessary to the judging rightly what part of the body is the
seat

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seat of the pain. *N. B.* We must not forget, that if the fever preceded the pains, the fever was the primary disease; but if it followed the pains, and is the effect of them, then the pains are the primary disease, and the fever *symptomatical*, &c.

§ 2274. But whatever be the particular part that becomes inflamed in consequence of the fever; whether it be any of those already mentioned, or the *stomach*, or *intestines*, or the *mesentery*, or the *pancreas*, or the *liver*, or the *spleen*, or the *kidneys*, or the *bladder*, or any other part; yet still the *curative* indication is the same, *viz.* to alter and remove the *viscid quality* of the animal fluids, and comminute any particles too bulky for an easy circulation and excretion.

§ 2275. And be pleased to observe, that those *alterative* medicines which destroy the cohesion of the particles of *viscid* humours, do likewise dissolve or divide the parts of the too *bulky particles*, or destroy the cohesion of their parts.

§ 2276. And the same sorts of ALTERANTS are proper for curing all inflammatory fevers; indeed all fevers produced by *inspissating* causes.

§ 2277. In prescribing for a patient under any fever that results from *inspissating* causes, and which is immediately produced by a *viscid quality* of the blood, the *concomitant* symptoms must be taken into consideration, and sometimes one or other of them may require a particular remedy to be directed for the relief of it, &c.

§ 2278. For patients under these fevers I prescribe one or other of the following medicines, *viz.*

R Antimon. diaphoret. sal prunell. ā ā ℥ss,
aq. alexiter. simpl. ℥ii. sacchar. albi q. f.
ad saporem gratum m. f. HAUSTUS omni
trihorio bibendus; *vel*

R Anti-

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℞ Antimon. diaphoret. pulv. contrayerv. comp.
ā ā ℥ss. aq. alexiter. simpl. ʒxiv. aq. alexiter.
sp. ʒii. sp. vini camphoræ gut. x. sacchar. albi
q. s. ad saporem gratum m. f. HAUSTUS horis
sextis, vel sæpius, si fuerit occasio, sumendus.

*And this is a proper medicine, when a diaphoresis
is to be promoted; vel*

℞ Rad. serpentar. virg. gr. v. antimon. dia-
phoret. pulv. contrayerv. c. ā ā. gr. x. cam-
phoræ gr. i. vel ii. vel iii. (vel vice camphoræ,
coccinell. gr. iii. vel v.) syr. balsamic. (vel
syr. croci) q. s. m. f. bolus sextâ quâque
horâ deglutiendus tepidè superbibendo ʒiv.
feri lactis vinosi.

*This is a suitable medicine in a miliary fever, and
in others attended with a weak pulse, dejection of the
spirits, and great loss of strength; vel*

℞ Sal nitri ʒss. et f. pulvis in partes octo
æquales dividendus, quarum capiat unam in
ʒiv theæ cum salviâ nobilî pptæ, et cum
saccharo albo ad gratissimum saporem edul-
cata, tertiâ quâque horâ.

*This medicine, gentlemen, I have prescribed with
great success both in continual and intermitting FE-
VERS; vel*

℞ Sal absinth.

Sal prunell. (vel nitri) ā ā ℥ss. dissolv. in aq.
alexiter. simpl. ʒx; dein adde

Succ. limon. aq. cinam. spirituof. ā ā ʒiii.
sacchar. alb. q. s. m. f. HAUSTUS sextâ quâ-
que horâ, vel sæpius, si postulaverit occasio,
bibendus; *vel*

℞ Sal ablinth. ʒss. (vel sal tartari ʒi.) succ.
limon. ʒss. m. et, effervescentia finita,
adde aq. menth. vulg. simplicis ʒvii. aq.
nuc. moscat. ʒiii. æthiop. mineral. gr. x.
vel xv. coccinell. gr. iii. vel iv. vel v. syr.
balsamic,

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balsamic. ℥ii. m. f. HAUSTUS ut prior fumendus; *vel*

℞ Sperm. ceti vitell. ovi solut. ℥i. vel ʒss.

Sal nitr. (vel sal prunell.) ℥ss. vel gr. xv. vel ℥i.

Aq. fluvial. (vel aq. Fœniculi dulc.) ʒx.

Aq. nuc. moscat. ʒss.

Syr. balsamic. ℥ii. m. f. HAUSTUS febrifugus, et pectoralis.

This is proper in fevers attended with coughs.

§ 2279. And I frequently would prescribe a bottle of some acid *drops*, to be used between the doses of the other medicines, *e. g.*

℞ Sp. vitriol. ten. (vel sp. vitrioli dulc. vel sp. nitr. dulc. vel ol. sulph. per campanam) q. v. — Capiat in ʒiv. liquoris cujuslibet diluentis cum sacchar. alb. edulcat. tot guttas quot sufficient ad moderatam aciditatem, frequenter, durante siti.

§ 2280. And sometimes I prescribe acid drops in the following manner; *viz.*

℞ Sp. vitriol. ten. ℥ii. Sp. vini rect. ʒss. et f. MISTURA, which may be properly called elixir of vitriol, though no aromatics are used, and may safely and properly be used in fevers attended with colliquative evacuations.

§ 2281. For patients in strait circumstances I generally, instead of draughts, prescribe juleps, or mixtures, &c. in the following manner, *e. g.*

℞ Sal prunell. (vel sal nitr.) ʒi.

Antimon. diaphoret. ʒss.

Aq. alexiter. simpl. ʒv.

Aq. alexiter. spirituosæ ʒi.

Sacchar. alb. q. s. ad saporem gratum; et f. MISTURA, cujus capiat cochl. ii. horis secundis, vel tertiis, phialâ prius agitâtâ,
et

et tepidè superbibendo haustum decocti
hordei; *vel*

R Sal absinth. albiss. ʒi.

Coccinell. ʒss.

Aq. cinam. simpl. ʒvss.

Aq. cinam. spirituof. ʒss.

Sacchar. alb. q. s. ad saporem gratum; et f.
mistura, ut prior sumenda.

But histories of the various sorts of fevers produced by *inspissating* causes, may be seen in my Second Volume on Fevers, where you will find an account of the medicines prescribed for the patients, and of the event of their sickness, to which, for brevity's sake, I must refer you.

§ 2282. II. I proceed now to consider FEVERS produced by *dissolvent* causes. These are *another general class*.

The antecedent, dissolvent causes, are either,
1. The *aqueous particles* of a moist, and very warm atmosphere; which has been long under such a temperature.

2. *An intemperate use of the summer fruits*. These are the most frequent *antecedent* causes.

3. *Acrid particles of a dissolvent nature*, conveyed into the fluids of the person infected, from somebody under a *contagious* fever, produced by dissolvent causes; that is, when the infectious *effluvia*, from persons under such a contagious disease, have a dissolvent quality.

§ 2283. When such *acrid, dissolvent* particles are conveyed into the blood of a person, before in health, they make a *disunion* of many of the component parts of the blood, and divide many of the globules into less and less, till they also become *acrid*, and contract a *dissolvent* quality.—And thus a dissolvent quality is *produced, increased*, and continued in the animal fluids.

§ 2284.

§ 2284. These fevers I call PUTRID, because they are attended with that *dissolution* of the parts, both of the animal fluids, and solids, which tends to their *putrefaction*, and which will end in death, if the dissolvent quality be not altered and removed.

§ 2285. There is a great variety of SYMPTOMS in fevers of this class, according as the DISSOLVENT PARTICLES are more or less in quantity, and more or less active in their dissolvent quality.

§ 2286. These fevers may be known by the following symptoms, *viz.* 1. By the pulse not being stronger, nor much quicker than in the time of health; or if quicker, yet weaker.

2. By the *heat* of the body being rather *less* than in time of health.

3. By a *sudden* and *great loss of strength*.

4. By a *great dejection of the spirits* with sighing.

5. By a *dry* and *black tongue*.

6. By *petechiæ*, superficial or deep.

7. By the EVACUATIONS being *colliquative*; or

8. By a sensible *wasting of the body*, without them.

9. By *spontaneous hæmorrhages*.

§ 2287. We may, by some or other of these symptoms, (when we meet with them in persons under fevers) know that their fever is of the *putrid* kind, and was produced by dissolvent causes.

§ 2288. I have described these fevers as produced by dissolvent causes, making the blood, and other fluids of the patient, *too thin*, 1. Because neither a *spissitude* of the blood, nor *viscid humours*, nor particles *too bulky* for an easy circulation, can with any reason be thought to be the productive causes of them. 2. Because these are plain evidences, in divers of them, of a great *disunion*, or *breaking* of the component parts of the animal

animal fluids; for all *colliquative* evacuations, all spontaneous *hæmorrhages*, and the *petechiæ*, are effects of such disunion, and a demonstration of it.

§ 2289. Fevers from *dissolvent* causes may be distributed into two classes, *viz.*

1. The *milder* putrid:

2. The *malignant* putrid.

§ 2290. 1. The *milder* putrid fevers, I call those which have no *colliquative* evacuations. In these the *dissolvent* causes are weaker, and consequently the danger of the patient, though great, is less than in the other sort.

§ 2291. 2. The *malignant* putrid fevers, I call those which are attended with *petechiæ*, *hæmorrhages*, or any *colliquative* evacuations, because their symptoms are more terrible; and because these in their nature are more destructive and deadly to the patients.

§ 2292. The *grand curative* indication is to alter the figure and quality of the *dissolvent* particles, to inspissate the animal fluids, and recover them to their natural consistence, and remove the laxity of the animal vessels.

§ 2293. I reckon the following *alterative* medicines proper remedies in those diseases, *e. g.*

Sal nitri.

— vulgaris.

Sp. vitrioli per se, or mixed cum sp. vini rect.

Ol. sulphuris *per campanam*.

Camphora.

Antimonium diaphoreticum.

Coccinella.

Crocus Anglicus.

Flores sulphuris.

Radix serpentariæ Virginianæ.

— tormentillæ

Radix

Radix petasitidis.

Sal martis.

Bolus *Anglica, Armena, Gallica.*

Myrrha. And these are proper on account of their *qualities*, which subserve either the altering the figure of the dissolvent particles, thereby rendering them effectual; or freeing the fluids or solids from the effects of the putrefactive quality, which subsisted in the blood; or strengthening the cohesion of the component parts of the muscular fibres and vessels; or recovering the *vis vitæ* to the standard of health.

Histories of cases, or examples of fevers resulting from the dissolvent causes, may be seen in *chapter xxi. of my 2d Vol. on Fevers*, to which I refer you.

§ 2294. III. COMPLEX FEVERS come next under our consideration: these result partly from *inspissating*, and partly from *dissolvent* causes; and may be known by their having a complication of symptoms peculiar to the two forementioned general classes of fevers.

§ 2295. Here I would observe a few things, viz. *Obs. 1.* That these fevers do sometimes proceed from the two sorts of causes specified, in an equal proportion of one to the other: Or,

Obs. 2. The *inspissating causes* may, in the production of these diseases, exceed the proportion of the *dissolvent causes*: and that they may do in a great variety of degrees; and the more they do so, the more will the fever resemble those which result purely from inspissating causes: Or,

Obs. 3. In like manner the *dissolvent causes* may sometimes exceed the proportion of the *inspissating*, and may do so in a great variety of degrees; and the more they do so, the more will such fevers resemble those which are purely *putrid*.

Obs.

Obs. 4. That the *febrile symptoms* in the *complex fevers* will be according to the proportion, which one sort of the productive causes bears to the others.

§ 2296. These fevers may be understood, and right methods of curing them deduced, by considering what has been said concerning the two former classes of fevers.

§ 2297. These (§ 2296.) may be divided into the following species, *viz.*

1. *Intermitting.*
2. *Remitting.*
3. *Continual.*

§ 2298. In patients under each species of complex fevers may be observed some symptoms, which are the effects of inspissating causes, and others, which are the effects of dissolvent causes.

§ 2299. The curative indications are to *combine alterative* medicines so as may most effectually remove the two morbid qualities combined in the production of those fevers.

Histories of cases, or examples of the various sorts of *complex fevers*, *intermitting*, *remitting*, and *continual*, are given in *chapters xxii. xxiii. of my 2d Vol. on Fevers*, to which, for brevity's sake, I must refer you.

§ 2300. 2. Of *ASTHMAS*. These I have placed here among the acute diseases, because the fits of the *asthma*, if they be not removed, or abated, will soon end in death.

§ 2301. An *ASTHMA* is a frequent, thick, and difficult *RESPIRATION*, sometimes with a *snorting*, *wheezing*, or *whistling* sound.

§ 2302. It is sometimes attended with a fever, but most commonly happens without it.

§ 2303. The immediate productive cause is either, 1. A *viscid* humour excreted into the *air vesicles* of the lungs; and the greater the quantity of this excreted humour is, the more violent is

the *asthma*, and the greater is the danger.—It is easy to apprehend, that when such a humour is evacuated into the air vesicles, the lungs cannot contract themselves as in time of health; and consequently, that the quantities of the AIR inspired, must be proportionably less than in a time of health, and the respiration become more quick and difficult.

§ 2303. Or, 2dly, This disease may be occasioned by a *viscid* glutinous blood, impelled by the right ventricle of the heart into the pulmonary artery, and its several ramifications, which may render the contractions and expansions of the lungs more difficult. But this I think *rarely* is the case, because in many distempers, in which the blood is very *viscid* and *glutinous*, the *asthma* does not happen.

§ 2304. Or, 3dly. *Tubercles*, or tumours, formed in the lungs have been reckoned a cause of an *asthma*. These will indeed be attended with a quick and difficult respiration, in proportion to the number and bulk of the tubercles: but then, as those *tubercles* are very minute at the first, and generally by *little* and *little* increase in bulk, till they are either *dissolved* by suitable *alterants*, or *suppurate*, *break*, and *become ulcers*, so the quick and difficult respiration, produced by them, comes gradually on, almost imperceptibly in its degrees of increase; whereas the *asthma* often comes on suddenly, or in a short time, and with violence.

§ 2305. I may add, 4thly, That a sudden *spasmodic* CONstriction of the membranes, and vessels of the lungs, may produce violent fits of the *asthma*: and we have reason to think this is the case when a fit of it comes on suddenly and with great violence.

§ 2306. The curative indication in *asthmas* is, by proper *alterative* medicines, to free the blood

from its *viscid* quality, to attenuate or dissolve the cohesion of the component particles of the *viscid humours* excreted into the *air vesicles* of the lungs, and to promote such *expectoration* as may free the vessels from a morbid *construction*.

§ 2307. ALTERANTS are the remedies wanted: but *bleeding* and *purgings*, in my opinion, are improper, &c. as I can assure you, from long experience, that *asthmas* may happily be cured without such *evacuants*, where there is no excess in the quantity of the *blood* and *lymph*.

§ 2308. The *lac ammoniacum* is often a useful medicine against *asthmas* by its *alterative* quality: as are those saline *mixtures*, *draughts*, and *juleps*, which have been so useful against *inflammatory* fevers.

§ 2309. The *balsamum capivi* in drops with sugar, or a solution of it *cum vitello ovi*, I have often found of great service in *chronical* difficulties of breathing. And I have frequently ordered, with advantage, *juleps*, with the *gas sulphuris*, &c. *per se*, and sometimes in a dish of linseed tea.

§ 2310. Such a mixture as the following may be very useful:

R Flor. sulphur. ʒi. crystal. tartari ʒii. sal. martis Riverii ʒi. fyr. de althæa ʒiii. ol. anisi gut. xiv. ol. amygdal. dulc. ʒi. et f. MISTURA *pectoralis* cujus capiat cochl. ss. vel cochl. i. singulis horis quamdiu potulaverit occasio.

§ 2311. The *vitellum ovi* is also a good medicine taken *per se* in a morning fasting.

§ 2312. III. Of the BILIOUS COLIC. The colic, properly speaking, is a violent pain in the gut called *colon*, but commonly the word is used to signify any extreme pain in the bowels, in whatever part of them it happens to fix.

§ 2313. Sometimes a patient describes the pain, as if his bowels were tied with a string; sometimes

times as if the part pained was bored with some hard instrument.

§ 2314. And often this disease is attended with violent *vomitings*, and great *costiveness*; which, I apprehend, proceeds partly from a *deficiency* in the quantity of the *bile* transmitted to the intestines, and partly from a violent *contraction* of that part of the *intestines* which is the seat of the pain, occasioned by the *stimulus* that excited the painful sensations.

§ 2315. If an acute fever preceded, and continues, then the pain shews an *inflammation* of the bowels, and that the disease is the effects of *viscid* or *acid* matter excreted to the parts affected.

§ 2316. If the pains were prior, and produced a fever, then they shew that there was some *obstructions* in the vessels affected, and some *acid* particles brought to immediate contact with the nerves affected: Or, that there are violent *pressures* against the extremities of the nerves by *elastic air*; in which case the patient perceives wind moving in his body, and has some relief when the wind is evacuated.

§ 2317. The *curative* indication is to remove the obstructions which produced the pains, obtain an easy passage through the intestines, and to alter the morbid quality of the blood which occasioned the obstructions.

§ 2318. When I am called to any patient under the *colic*, or any violent pain in the *stomach*, I order draughts of hot water, four ounces for a draught, sweetened a little with sugar, or not, to be taken frequently.—This is a good remedy also against vomitings.

§ 2319. I prescribe the following medicines, or such like:

R Sperm. ceti ʒii. ol. junip. gut. xii.

Ol. amygdal. dulc. (vel ol. olivar.) ʒvi.

L 2

Syr.

Syr. de althæâ, syr. de mecon. ā ā ʒss. et f. MISTURA emolliens, cujus capiat partem quartam pro dosi horis secundis, vel sæpius, si postulaverit occasio, durante dolore, misturâ prius agitâtâ. Posteaumat iv. pilularum sequentium: dein post horas iii. si fuerit opus,umat reliquas.

R Mass. pilul. è duobus ʒi. mass. pilul. Rufi ʒss. ol. junip. gut. iii. m. f. pilulæ. No. vi.

If these pills should not operate, I would prescribe such a glyster as the following :

R Sal. vulg. ʒss. dissolv. in aq. pulegii ʒiv. dein adde syr. de spinâ cervinâ, ol. olivar. ā ā ʒi. m. f. ENEMA. *Vel,*

R Balsam. capiv. ʒii. ol. succini gut. x. dissolv. cum vitell. ovi q. f. dein adde syr. violarum, ol. olivar. ā ā ʒi. aq. pulegii simpl. ʒiv. m. f. ENEMA.

§ 2320. Sometimes I direct the belly to be fomented with such a decoction as the following, and afterwards to be anointed cum ol. olivar. tepidè.

R Rad. althææ, sem. anisi, sem. cymini, ā ā ʒi. coq. cum aq. puræ q. f. ad lbii. m. pro POTU quo stuphislaneis partes affectæ per semihoram tepidè foveantur.

HISTORIES of persons under the colic you may read in my treatise on painful distempers.

IV. Of the HYSTERIC COLIC. This is a most acute and violent pain about the pit of the stomach, happening to women under a morbid hysteric habit of body, and is often attended with vomitings of a humour of a green colour, from bile mixed with it, &c.

§ 2321. The drinking *hot water* often is a very beneficial remedy in this case, as well as in the *bilious* colic: and likewise such medicines as the following are proper and often effectual, *viz.*

R Sperm.

℞ Sperm. ceti ʒi.

Castor. Russiæ gr. iii.

Camphor. pulv. gr. ii.

Ol. succini gut. iii. vel iv.

Syr. balsamic. (vel syr. de althæâ) q. f. m. f.
bolus horis octavis, vel sextis, vel sæpius
si fuerit occasio, durante dolore, sumen-
dus; nihil superbibendo per horæ qua-
drantem; *Vel,*

℞ Sperm. ceti ʒi. flor. sulphur. sal prunell.
nuc. moscat. ā ā ʒi. ol. anisi gut. iv. m. f.
pulvis in partes iv. æquales dividendus,
quarum capiat unam horis sextis, vel quar-
tis, vel sæpius, cum cochl. i. misturæ se-
quentis mistam tepidè superbibendo hauf-
tum feri lactis cum vino montano, vel
tepidè fumat cyathum aq. pulegii.

℞ Aq. pulegii simpl. syr. de althæâ ā ā ʒi. et
f. mistura pro pulv. *Vel,*

℞ Moschi ʒss. ol. anisi gut. vi. gum. ammo-
niac, ʒss. syr. de mecon. q. f. m. f. pilulæ
No. xii. Dos. iv. horis tertiis si fuerit opus.

V. OF THE ILIAC PASSION. This is a most acute pain in the belly, chiefly of the *ileum*, wherewith the *peristaltic* motion of the intestines is inverted; and it is accompanied with such violent vomitings, that not only things taken into the stomach, but even *glysters*, and the very excrements, (the *feces alvine*) are sometimes evacuated at the mouth.

§ 2322. This is a most acute distemper, and attended with extreme danger of death: but it rarely happens. The cause of it is an *inflammation* of the *gut ileum*, near its end, towards the *coecum intestinum*. [*Hildanus* always found those parts inflamed in the bodies of those who died of this disease.]

§ 2323. A very *acrid bile*, (which produces the pains) stimulating the vessels affected to violent

contractions, and occasioning obstructions to the passage of their fluids through them, is reckoned to be the cause of the *inflammation*, and the inversion of the peristaltic motion of the intestines (§ 2322.).

§ 2324. The curative indication is to remove the *inflammation*, and the obstructions which occasion it. And for this end the emollient mixture directed in the *bilious* colic is proper, as are also the pills there described (§ 2319.).

§ 2325. But if this method (§ 2324.) proves ineffectual the following medicines in my judgment are very proper; *viz.*

R Aceti ʒi. pro haustulo. *Vel,*

R Ol. olivar. aceti, ā ā ʒi. sacchar. alb. q. f. ad saporem gratum; optime misceantur, et f. HAUSTUS, singulis horis vel sæpius exhibendus, donec vomitus, et dolores cessaverint: postea leniter expurgetur corpus cum pilulis prædictis, vel cum sale mirabili Glauberi ʒi, aq. fluvial. lb. i. solut. cujus capiat ʒii. singulis semihoris donec alvus fæces, vel humores dejecterit. *Vel,*

R Aceti ʒi. aq. menth. vulg. simpl. vin. alb. āā ʒss, sacchar. alb. q. f. ad saporem gratum m. f. HAUSTUS, tepidè, vel frigidè ut prior bibendus. *Vel,*

R Aceti ʒvi.

Aq. fluvial. ʒi.

Syr. de althæa ʒii. m. f. HAUSTUS, ad usum eundem.

§ 2326. Be pleased to observe, that if the pain ceases all on a sudden in this or the bilious colic, there is reason to conclude that the parts affected are mortified, and that death will soon follow.

§ 2327. VI. CHOLERA MORBUS, or as some call it *passio fellisua*, on account of the large quantities of bile that are evacuated both upwards and downwards

wards in this disease ; which is a continual purging upwards and downwards.

§ 2328. The other symptoms are *flatulent distentions*, and *pains* in the *stomach* and *bowels*, violent *heartburn*, great *thirst*, *inquietude*, *anxiety*, a sudden *prostration* of strength : the *PULSE* is quick at first, then becomes *weak*, *slow*, *intermitting* ; when the extreme parts grow cold, the spirits fail, and death ensues, sometimes within a few hours.

§ 2329. This distemper most commonly happens in the month of *August*.—But by *surfeiting*, by *gluttony*, and *drunkenness*, it is sometimes produced in other times of the year.

§ 2330. Its immediate cause are *acid* particles (whole figure or texture we know not). I say *acid* particles, of a *dissolvent* nature, secreted from the blood in the *liver* with the *BILIOUS* humours, rendering them too thin, and passing with them into the *duodenum*, and other intestines ; and also secreted from the blood into the cavity of the stomach, and acting as a violent *stimulus*, both in the intestines and stomach.

§ 2331. As the symptoms of this disease could not be produced without *acid* stimulating particles of matter excreted into the stomach and bowels ; so we know that those stimulating particles were excreted from the blood, and may certainly infer, that a *morbid* quality subsists in the blood of persons afflicted with this disease, and that it is of an *acrimonious* nature.

§ 2332. These things (§ 2330, 2331.) considered will lead us to apprehend, that for curing this disease we must 1. endeavour to *dilute* and *alter* the quality of the humours actually excreted into the stomach and bowels : then, 2. by proper *alterative* medicines endeavour to free the blood from its *acrimonious* quality.

§ 2333. For these intentions it is proper that the patient should drink plentifully of hot water, as in the *bilious cholica*, or of a decoction of the *rad. althææ* edulcorated with loaf sugar to an agreeable taste, or of hot water medicated with a solution of the *gum arabic*: these things may obtund the *spiculæ* of the stimulating particles.

§ 2334. The following *alterants* are proper remedies, *viz.*

℞ Antimon. diaphoret. ʒi. pro una dosi singulis vel alternis horis sumenda quamdiu fuerit occasio. *Vel,*

℞ Antimon. diaphoret. cretæ alb. pulv. è chel. cancr. simpl. ā ā ʒii. m. f. PULVIS in partes iv. æquales dividendus, quarum una exhibeatur ut prior. *Vel,*

℞ Sperm. ceti, cretæ albæ, philon Londinensis ā ā ʒss. syr. balsamic. q. f. m. f. BOLUS, quamprimum exhibendus, et post horas quatuor, si postulaverit occasio, repetendus.

§ 2335. VII. Of APOPLEXIES. An *apoplexy* is a sudden loss, or abolition of all the senses, with an incapacity for all voluntary motions: respiration, and the action of the heart and arteries still remaining.—The patient seems to lie in a profound sleep, snoring: he has sometimes a froth about his mouth, and a colour in his cheeks; at first his pulse is strong, and respiration large; but when the colour of the cheeks fade and turns pale; when the *fæces alvinæ*, and *semen* are ejected; when the pulse sinks, and the extreme parts grow cold, death is at hand.

§ 2336. Various may be the CAUSES of this disease, *viz.* 1. An *extravasation* of blood, or lymph, &c.

2. A *sudden obstruction* to the course of the fluids, through some of the vessels of the brain, which occasions

occasions a *distention* of them, and a *compression* of the adjacent vessels.

§ 2337. The *cerebrum*, or greater brain, is the principal seat of this distemper; and an obstruction of all the nerves, situated in the *sensorium commune*, or common sensory, produces the symptoms, which is the reason why no ideas, or images of external objects, can be conveyed thither by the nerves, which pass from the organs of sense; and also is the reason why the acts of the will cannot produce any of the motions we call voluntary.

§ 2338. It deserves observation, that an *apoplexy* scarce ever happens to human bodies in the youth and vigour of life, when they are fullest of blood, and although they are plethorick; consequently we have no reason to imagine, that this distemper is produced by an excess in the quantity of the blood.

§ 2339. And if we consider, that it happens only to bodies advanced in life, towards old age, we may reasonably think, that besides a *viscid* quality of the blood, the ARTERIES (if they are not ossified) yet, are become *rigid*, and not so distractile as they ought to be.

§ 2340. An apoplexy from a rupture of any of the vessels, and an extravasation of blood, I apprehend to be incurable. But as we cannot see, nor certainly know the real state of things in the brain, we ought to use all proper means for removing the distemper.

§ 2341. The curative indications are, (as quick as possible) to *attenuate* and *thin* the blood, and all other fluids of the body; and as soon as the patient is capable of swallowing, to prescribe suitable *alterants*. And first let some blood be taken away, and some *sneezing* powder be blown into the nostrils, after vinegar has been injected, *e. g.*

R Rad.

℞ Rad. hellebor. alb. pyrethri, piperis, ā ā
 ℥ss. castorei gr. vi. m. f. pulvis sternuta-
 torius.

2342. If the patient sneezes, it is a hopeful sign; but if he does not, it is bad.

§ 2343. Strong, stimulating, purging glysters may properly be advised to make a *revulsion* from the head.

§ 2344. Likewise *fomentations*, made of a decoction of the *bedera terrestris*, in a sufficient quantity of water, to which an equal quantity of vinegar may be added, may be applied warm to the whole head. After which a mixture of equal parts of vinegar et sp. vin. rect. may be a proper foment.

§ 2345. When the patient is capable of swallowing, we should prescribe as follows, viz.

℞ Mass. pil. è duobus ℥ss. et f. PILULÆ
 No. vi. quarum capiat v. quamprimum, et
 post horas iii. alteram si fuerit occasio; *vel*,

℞ Mass. pilul. ex colocynthide cum aloe ℥ss.
 æthiop. mineral. ℥ss. syr. de spina cerv.
 q. f. m. f. PILULÆ No. viii. quarum im-
 mediatè sumat sex, et post horas iv. capiat
 reliquas, si fuerit opus.

The following *julep* should be used at the same time, for *thinning* the blood, and preserving the circulation of it, viz.

℞ Sal prunel. ℥ii.

Sal succin. ℥i dissolv. in

Aq. alexiter. simpl. ℥v. dein adde

Aq. nuc. moscatæ ℥i.

Sp. nitr. dulc. ℥i.

Sacchar. alb. q. f. ad saporem gratissimum
 m. f. JULEPUM, cujus capiat cochl. ii.
 singulis horis, tepidè superbibendo hauf-
 tum decocti hordei.

There sometimes happen instances of **SUDDEN** Death, when in a moment as it were the circulation of the blood ceases, and there is a total stop to all the vital motions, in the existence of which the life of the body consists.

But such persons cannot be said to die of an apoplexy.

§ 2346. VIII. OF LETHARGIES. A *lethargy* is an insatiable, or insuperable inclination to sleep, with a slow fever, attended with a hurt of the principal faculties of the mind and body.

§ 2347. In this distemper the face swells, the rest of the body grows lean, the hands tremble and sweat, and sometimes a cold sweat and forgetfulness happen to the patient.

§ 2348. Dr. BOERHAAVE reckons this disorder a light, or mild species of an *apoplexy*. And indeed, all sleepy distempers seem to have great affinity with the *apoplexy*, as they arise from, and depend on a *viscid* quality of the blood, a *laxity* of the vessels, an obstructed circulation, and a deficiency in the strength, or in the force of the action of the vital organs: and they do not essentially, but in degree, differ from it, or from one another.

§ 2349. The common cause of these diseases, as I have observed, is an *obstruction* of some of the vessels of the greater brain, either more, or fewer; and the cause of such obstructions is a *viscid quality* of the blood and lymph, and a *laxity* of the vessels.

§ 2350. Here I desire it may be observed, that the longer, and the more profound the sleep is, the greater is the danger.

And that a lethargy generally puts an end to life in seven days, if it be not sooner cured.

§ 2351. The

§ 2351. The same method and remedies that are proper in *apoplectic* cases are as proper in this.

BLISTERING plaisters may fitly be applied to the neck, and behind the ears, and sometimes to the head after it is shaved.

Tea and *coffee* are proper drinks, so are decoction *chinae*, *sarsaparilla*, *centaurii minoris*, *cardui benedicti*.

§ 2352. Rubbing the head, forehead, temples, and nostrils with vinegar, and then with sp. vini rect. *alternatim* may also be of service. The following mixture applied to the *temples*, *forehead*, and *wrists* is much recommended by *Junken*.

R Aceti ℥iii. nitri ℥i. albumin. ovi unius, camphor. gr. iii. m. Applicato hoc lethargus cessabit.

§ 2353. IX. The COMA SOMNOLENTUM is the next disease to be considered. This is such a continual sleeping, that if the patient is made to awake, he presently falls asleep again.

§ 2354. This disease is distinguished from a *lethargy*; for that always has a *fever* concomitant with it, but this not always: and it differs from an *apoplexy*, because in that distemper the patient does not awake, nor move his limbs.

§ 2355. The proximate cause of this disease is, either, 1. A compression of the *nerves* subserving the organs of the senses, and of other vessels of the *brain*, occasioned by *viscid* humours collected in the *ventricles* of the brain, secreted from a *viscid* blood, as in the last mentioned disease; or,

2. A deficient secretion of nervous fluid by the *brain*; by one or other of these singly, or by both in combination.

§ 2356. This distemper is attended with exceeding danger, for if it continues more than three days it is generally mortal.

§ 2357. The

§ 2357. The curative indications, and the proper remedies, are the same as in a *lethargy*.

X. COMA VIGIL is a very great, and by any act of the will, insuperable *propensity* or *inclination* to sleep; I say insuperable, because no act of the will can restrain or remove it; and it is a strong inclination to sleep without a capacity of sleeping.

§ 2358. This is attended with a great heaviness of the head, a sort of *stupor* of all the senses, and a disinclination to all voluntary motions. It seems to be a middle state between a *lethargy* and a *phrenzy*.

§ 2359. The cause of this disorder, for the most part, is a *compression* of the nerves, and other vessels of the brain, with an inordinate motion of the spirits or nervous fluid.

§ 2360. This compression is commonly occasioned by *viscid* humours collected in the *ventricles* of the *brain*. But this disease may also result from a *deficient* secretion of nervous fluid by the *brain*.

§ 2361. In order to cure this disease, we must endeavour to remove the cause which produced it; that is, to render the blood, and other fluids of the body, easy to circulate through their proper vessels, by altering the morbid qualities subsisting in them; to strengthen the solids; to promote the secretion of the nervous fluid; and increase the force of the action of the vital organs.

XI. The CARUS is another disease of the head, and is the most profound sleep incidental to human bodies. It is a sudden *abolition* of the senses, and deprivation of all voluntary motions, and is accompanied with a very *acute* fever.

§ 2362. In this disease, if the sick are pulled, or pinched, or pricked, or called upon with a loud voice, they take but little notice, yet have some perception; and in this respect it differs from an *apoplexy*.

§ 2363. The

§ 2363. The causes of this disease are the same as those of the foregoing (§ 2353.); only here they are in a greater degree. And the proper remedies, and method of cure, are the same as in an *apoplexy*.

The *COMA somnolentum*, and the *COMA vigil* seem to be only species of the *CARUS*, but in somewhat lower degree.

XII. The *CATALEPSIS* is another disease of the head, in which there is on a sudden, or in a moment, an abolition of all the animal functions, except the action of the *heart*, *arteries*, and *lungs*; under which the patient remains without motion, in the same state, and posture of the body, in which he was when the fit seized him.

§ 2364. This distemper differs from the *apoplexy* and *epilepsy* in this particular, *viz.* that in these distempers, if the patient was standing, or sitting, as soon as he is seized, he *falls*; but in the *catalepsy* it is otherwise, as is before mentioned. And I apprehend, that the *catalepsy* may be distinguished into *acute* and *chronical*.

§ 2365. The cause of this disease seems to be a sudden obstruction in the beginning of that part of the *medulla oblongata*, where all the nerves that go off from the greater brain to the organs of the senses, and to the muscles used in voluntary motions, have their entrance.

§ 2366. This catalepsy is for the most part mortal; but if curable, is to be cured by the same methods and remedies which are proper against *apoplexies*.

§ 2367. XIII. Of the *FITS* of the *STONE* or *NEPHRITIC FITS*. I mean by this disease, a violent pain in the *kidnies*, or *ureter*, occasion by some stone or large gravel. If there is with the pain an *acute* and continual fever, we may conclude that the parts pained are under an inflammation.

§ 2368. The

§ 2368. The remedies proper in such cases, are *emollients* during the *paroxysms*, taken at the mouth, and injected by glyster. Thus the urinary passages are to be relaxed. But when the *paroxysm* is off the patient should make daily use of some or other of those sorts of aliments, which have a quality dissolvent of human *calculi*; and which of our aliments have such a quality, I have shewn in my *Treatise on Stone, &c.*

XIV. OF A SUPPRESSION OF URINE. This is a total stop to the evacuation of urine from the body.

§ 2369. Sometimes it is occasioned by one or more *calculi*, sticking in the entrance of each *ureter* from the *pelvis* of each kidney: And

Sometimes by some obstruction, or *constriction* of the excretory *tubuli*, in the substance of the kidneys, through which the urine passes from the blood into the *pelvis* of each kidney, and so onwards to the bladder.

§ 2370. But whether a suppression of urine be occasioned by obstruction from *calculi*, or by a constriction of the excretory *tubuli* of the kidneys, oleagenous, mucilaginous, emollient and relaxant medicines, are the proper remedies.

END OF LECTURE XIX.

LECTURE XX.

OF CHRONICAL DISEASES.

- I. *The chronical Diseases of the Head*, viz. 1. *Pain of the Head*. 2. *Vertigo*. 3. *Pervigilium*, or too great watchfulness. 4. *Somnolentia nimia*, or too great Sleepiness. 5. *Paralysis*. 6. *Epilepsia*. 7. *Melancholia*. 8. *Mania*. 9. *Deafness*. 10. *Gutta serena*. 11. *Hoarseness*. 12. *The Aphthæ*, or Ulcers in the Mouth. 13. *The Aphonia*, or Loss of Speech.

§ 2371. **T**HESE may be divided into four classes, viz.

1. Those of the head.
2. Those of the thorax, or chest.
3. Those of the abdomen.
4. Those of the limbs.—These several classes I shall consider in their order; and,

§ 2372. I. The chronical diseases of the head: and the chief of these are the following, viz.

1. Pain of the head.
2. Vertigo.
3. Pervigilium, or *too great watchfulness*.
4. Somnolentia nimia, or *too great sleepiness*.
5. Paralysis.
6. Epilepsia.
7. Melancholia.
8. Mania.
9. Deafness.
10. The gutta serena.
11. Hoarseness.
12. The aphthæ, or *ulcers in the mouth*.
13. The aphonia, or *loss of speech*.

§ 2373.

§ 2373. I. PAINS of the HEAD. These are either *external* or *internal*.

We may know whether the pains are *external* by pressing the finger against the part pained; for in such cases, that pressure will somewhat increase the pain, till it be removed; but it is otherwise, when the pain only affects parts within the skull, as I have experienced in myself.

§ 2374. As for remedies here (§ 2373.); rubbing the parts affected with vinegar and rectified spirits of wine, or hungary water, together, or *alternatim* will generally remove it. At the same time, those medicines which may remove a *viscid* and acrimonious quality from the blood, are proper, and generally effectual, *e. g.*

℞ Sal abfinth. sal prunell. ā ā ðii. mannæ opt. ʒi. dissolv. in aq. alexit. simpl. ʒvi. dein adde succ. limon. ʒi. sacchar. albi q. s. ad saporem gratum, m. f. JULEPUM, cujus capiat cochl. ii. ter in die, superbibendo ʒiv. decocti hordei.

§ 2375. *Internal* pains of the head are those which are seated in some parts within the skull. These are tormenting sensations in the part affected; produced either by a pressure against the extremities of the nerves affected, occasioned by a distention of some adjacent vessels; or produced by acrid matter brought to immediate contact with the extremities of those nerves.

§ 2376. Physicians divide those *internal* pains of the head into four sorts, *viz.*

1. CEPHALÆA, which is a continual stubborn pain of the whole head.
2. HEMICRANIA, which is a pain of one half of the head.
3. CEPHALAGIA, which in general signifies any pain of the head; but when the word is used specially, it denotes any recent pain.

4. MONOPAGIA, which signifies the pain only of some one part of the head. This is very acute, as if the part affected was pierced with a nail.

§ 2377. The productive causes of all pains of the head are either a *viscid*, or an *acrimonious* quality of the blood, or of both conjunctly. The curative indication, therefore, is by suitable *alterants*, to correct, or remove the morbid qualities.

§ 2378. How such qualities may effectually be removed, I have shewed you already. Indeed, if there is any excess in the fluids of the patient, *evacuants* must be also advised; if the excess is in the quantity of the blood, blood should immediately be taken away; but if the excess is in the quantity of the lymph, some *purgative*, or *diuretic*, or *sudorific* medicines should be directed; but not till the *viscid* quality has, at least in some measure, been removed.

§ 2379. II. The VERTIGO is another disease of the head. In this, the images of the objects of sight are not duly represented to the patient, but seem to be in a sort of circular motion, turning round.

Dr. BOERHAAVE apprehends the causes of this disease to be much the same as in an APOPLEXY, only in a lower degree.

§ 2380. The immediate producing cause of this disease, in my opinion, is too great a flux of nervous fluid, through the optic nerves, to the *tunica retina* of the eye; which humour perhaps has a kind of *circumgyration*, or motion, which may be the reason that external objects seem to the patient in such motions.

§ 2381. Here it appears to me, that the optic nerves are *too lax*, and the *influx* of *nervous fluid* too great. And therefore, that the curative indication is to *strengthen* the animal vessels, and increase the cohesion of their component parts, which

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which will somewhat lessen their diameter, and consequently the quantity of the fluids flowing through them.

§ 2382. *Chalybeates* and *cephalic* ingredients are proper to enter the composition of medicines against this disease. Warm *cephalic fomentis* are also proper. And if there is a general laxity of the vessels, and too much lymph, some purgatives should be given.

§ 2383. III. *PERVIGILIUM*, or a continual wakefulness, or absence of sleep, is another disease of the head.

This is not very frequent; but it happens to some, and continues many weeks, or months, or years.

§ 2384. The real state of things, in a patient, under this distemper, seems to be this, *viz.* 1. There is such a flux of nervous fluid and spirits, into the organs of the senses, in the nights as well as in the days, as subsists in healthy persons when they are up, and employed in their usual labours. 2. The *relaxation* of the vessels, which constantly occurs to people in the time of sleep, does not happen to these patients.

§ 2385. And therefore we may hence (§ 2384.) infer, 1. That there is a too copious secretion of nervous fluid from the blood by the brain; that is, a greater quantity of it secreted than in the time of health: And, 2. That the *tubuli* of the brain are *rigid*, or under a *tenseness* not easy to be removed.

§ 2386. The curative indication, therefore [in this case] is, 1. To diminish the quantity of the nervous fluid. How this may be done, I have shewed [you] already (§ 2008.) 2. To remove the *tenseness*, or rigidity of the vessels of the brain.

§ 2387. For this intention (§ 2386.) very suitable remedies, both *external* and *internal*, may be contrived.

I. As to *external* remedies; bathing, with immersion, in warm water is proper: likewise fomenting the whole head with mucilaginous decoctions, mixed with an equal quantity of *vinegar*; also, sometimes, the *mucilaginous* decoctions (instead of *vinegar*) may be mixed with a solution of some *nitrous salts*.

As for *internal* remedies; *nitrous juleps*, *limonade*, or other soft *acids*, mixed with a decoction of the *radix althææ*, &c. may be very serviceable. Likewise *OPiates* may be daily given, so long as there shall be occasion, and in such doses as shall effectually procure sufficient sleep.

§ 2388. IV. SOMNOLENTIA NIMIA, or a too great sleepiness, is another disease of the head. This may be produced by any cause which hinders an easy and sufficient flux of the spirits from the *medulla* of the brain, through the nerves, to the organs of the senses, and to the muscles subserving voluntary motions, and may be occasioned by a *lymphatic plethora*, a turgency of the lymphatics, and a compression of the vessels of the brain.

§ 2389. This disease rarely happens, unless to persons of a *leucophlegmatic* habit of body, or when the animal fluids are *viscid*, and there is a cold and moist *intemperies* of the brain, and a *laxity* of its vessels.

§ 2390. If there are no symptoms of an excess in the quantity of the blood, we may be sure there is an excess in the quantity of the *lymph*, and a *viscid* quality.

§ 2391. The curative indication is [to remove the productive cause of the disease; that is] to diminish the quantity of the blood, if that is too great. But this rarely is the case.

§ 2392. As

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§ 2392. As therefore it results from an excess in the quantity, and from a *viscid*ity in the quality of the *lymph*, and a *laxity* of the vessels; so it is manifest, that we ought to endeavour to make an alteration of the morbid quality, to lessen the quantity of the *lymph*, and to recover the vessels to their natural *tenseness*.

§ 2393. V. The PALSY. This disease is such an affection of some parts, that the motions proper to them, cannot be performed by any effort of the patient; attended with a flaccidity of those parts.

§ 2394. The cause of this disease is some impediment of fluids into the muscles, paralytically affected, more especially to the influxes of the nervous fluid from the brain into those parts.

§ 2395. These impediments, for the most part, are obstructions of the nerves from a *viscid* humour, and obstructions of the capillary sanguine arteries, from a *glutinous* quality of the blood, in bodies of a *moist* and *cold* temperament.

§ 2396. The *curative* indications are, 1. To alter and destroy the *viscid* quality of the animal fluids, by suitable *alterants*, and thereby to remove the obstructions, and procure a free and easy circulation of the blood and nervous fluid: 2. To take off the *flaccidity* of the *paralytic* parts, and strengthen or corroborate all the animal vessels.

§ 2397. Physicians reckon three species of the palsy. 1. The first they call *paraplegia*, *i. e.* when both sides of the body (or when *all the muscles below the head*) are *paralytically* affected, and immovable by any act of the will.

2. The second they call *hemiplegia*, when only *one side of the body* is paralytical.

3. The third they call *particularii*, when *one limb*, or this or that particular part only is affected.

But all the several *species* of the PALSY are to be cured by the same method and remedies.

§ 2398. It should be observed, that the *palsy*, and the *soporose* or sleepy diseases, have a great affinity with the *apoplexy*; and do not differ essentially, but only in degree, and proceed (in a great measure) from the same causes, except *that sort* of APOPLEXY which is produced by a sudden rupture of some blood vessels of the brain.

§ 2399. As for remedies proper in *paralytic* cases, I have in former lectures laid before you a great variety of *alterative* medicines, for *attenuating viscid* humours, and freeing the animal fluids from any *glutinous* quality, and procuring an easy circulation of the blood. But here I would observe, that it is generally necessary in this kind of diseases (in compounding medicines) to direct some warm ingredients, *e. g. rad. cassumunar. zedoar. zinziber. serpentar. virg. &c.*

§ 2400. *Chalybeates* also I esteem of great importance, *e. g. sal martis Riverii*, and *ens veneris*, which is now called *flores martiales*.

§ 2401. Preparations of *amber* are likewise of great service, *e. g. sp. et sal et ol. succini*. So are the *sp. lavendul. comp.* and *sp. sal ammoniac.* to which may be added many of the *diaphoretic* medicines, which by experience have been found effectual to attenuate the animal fluids, and to promote the secretion by insensible perspiration.

§ 2402. A great variety of external remedies may be contrived, to be applied to the parts affected (as fomenta made by decoction, liniments, &c.). Thus, if the *palsy* be of one side, I order the spine of the back to be rubbed with some proper liquid, or anointed with some suitable *liniment*. The *ol. succini* per se, or sometimes with the addition of one 4th or 3d part of *ol. olivar.* has been of service,

§ 2403. When

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§ 2403. When only some particular part is *paralytically* affected, *e. g.* the *hands* or *fingers numbed*, and partially or totally deprived of motion, I have ordered the parts affected to be well rubbed with a mustard, made by mixing the flower of mustard-seed with a sufficient quantity of *sp. lavendul. comp.* at night, and the next morning to be put into cold water for a minute, and then rubbed till they are warm; and this with good success.

§ 2404. In *July* 1747, for a painter, aged about forty-seven years, who had the palsy in his right arm and leg, I prescribed the following remedies; which, without any other medicine, were effectual to his recovery.

R Aq. pulegii simpl. ℥ivss. tinct. martis stelveticæ ʒvi. *sp. lavendul. comp.* ʒii. *sp. sal ammoniac. gut.* xl. *fyr. balsamic.* ʒss. m. f. JULEPUM, cujus capiat cochl. ii. horis sextis vel octavis.

R Sp. vini rect. ʒiiiss. *sp. cochlear. hortens* ʒss. *sp. sal ammoniac. gut.* xl. tinct. fucini gut. lx. m. f. fofus, quo partes affectæ bis terve in die fricentur.

§ 2405. VI. Of the EPILEPSY. This is a sudden universal convulsion of the whole body, which makes a man, without any warning, to fall; and is, for a while, attended with an *abolition* of all his senses, and of all voluntary motions.

§ 2406. In the *epileptic* fit (for the most part) there happen convulsive motions of the eyes, and almost of the whole body. There is a *froth* about the mouth of the patient. His respiration is frequent, and unequal; he makes strange sounds; and sometimes there happens a discharge of the *semen*, the *fæces alvinæ*, and urine.

§ 2407. The causes often productive of this disease (as things appear to me) are too great REPLETIONS, periodically succeeding each other,

with some peculiar *acrimony* of the animal fluids. As the red *blood* and *lymph*, sometimes too much abound, so may the nervous fluid.

§ 2408. And in *epileptic* persons, I apprehend there frequently is a returning *plethora*, or an excess of the blood, and of the nervous fluid, with an *acrimonious* quality.

§ 2409. The reasons of my opinion are these:

1. In a patient under this distemper, whom I had the opportunity of seeing frequently for near six months together, I often observed, that before the accession of an *epileptic* fit, the *sanguiferous* vessels were more turgid, and fuller than at other times.

§ 2410. 2. There happen in the *epileptic paroxysm* very copious *evacuations* by the kidneys, by the *intestines*, by the sudoriferous vessels, and I think by the nervous *tubuli* in both *superficies* of the body, external and internal, produced by the violent convulsive motions, and contractions of those parts of the body.

§ 2411. It deserves consideration, that the excess of the animal fluids being removed, by the extraordinary evacuations mentioned, the body returns to its healthy state, till a new *plethora* of the same kind comes on. This appears evident to me in the case of some *epileptic* persons.

§ 2412. 3. Because the remedies which are most effectual for curing this disease are such as conduce to free the animal fluids from a *morbid acrimony*, and to prevent all excess in the quantity of them, &c. For these intentions, the following medicines may be prescribed, *viz.*

℞ Rad. serpentar. Virg. castor. Russ. ā ā ʒss
antimon. diaphoret. ʒi. cortic. eleuther. ʒvi,
fyr. pœon. mar. vel fyr. balsamic. q. f.
m. f. electarium, cujus capiat quantitatem
nucis moschatæ ter in die superbibendo
haust.

haust. decocti ligni guaiaci ras. et visci quer-
cini.

§ 2413. This method I directed with happy success for a poor woman about twenty-seven years old, as you may see more largely in the *History of the thirteenth Case*, related in my *second Volume on Fevers*. The medicines there advised are fit to alter the acrimonious quality of the blood, and to promote the insensible perspiration.

§ 2414. The following medicines are also proper *alteratives* for the same purpose:

R Cinnab. nativ. subtiliss. pulv.

Specier. aromatic. ā ā ʒii.

Cortic. Peru. ʒss.

Conserv. anthor. vel falviæ ʒi.

Syr. balsamic. q. f. m. f. electarium, ut prius fumendum, superbibend. haustum decocti rad. valerian. sylv. vel visci quer-
cini.

§ 2415. Three days before the usual time of the coming on of a fit, I would advise a gentle purge of the *tinct. sacra*, with 20 drops of the *tinct. castor.* or with two or three gr. of *sal succini*; and the day following, order four or six ounces of blood to be taken away by the *lancet*, or by cupping, which last I prefer.

§ 2416. I would likewise advise issues to be made, between the shoulders, by *causticks*; and put the patient into a milk diet.

These things are proper remedies *extra paroxysmum epilepticum*.

§ 2417. But when the patient is in a fit, it will be requisite to have his head raised from the floor, or ground; and to secure it so, that it may not be hurt by any convulsive motion of it. Likewise gently to open, and extend and rub the fingers, and other contracted parts; and to open
his

his mouth, and put in a piece of wood between his teeth to prevent his biting his tongue.

§ 2418. The wetting with cold water the face of the patient, and the rubbing his nostrils with *vinegar*, or the putting a *dossil*, wetted with *vinegar*, up one nostril, and then the other, may be of service.

§ 1419. The *blowing* some sneezing powder up his nose, and rubbing the *sutures* of the skull, and the *nape* of the neck, with a few drops of the *ol. succin.* may contribute to shorten his fit. And if his pulse be full and strong, the opening a vein, and taking away about six ounces of blood may prove beneficial.

§ 2420. VII. CATALEPSIS *chronica*. I need only here to observe, that patients under it are to be managed in the same manner, and to have the same remedies as under the *acute*, *i. e.* such as are proper in the case of *apoplexies*.

§ 2421. VIII. MELANCHOLIA. *Melancholy* is another disease of the head, which more frequently occurs than several of the last mentioned.

§ 2422. This distemper appears to be a continual and fixed *delirium*, without *fever* and without *fury*, but with much *fear* and *grief*, accompanied with sad apprehensions and dreadful expectations, so that life is burthensome.

§ 2423. The causes of this disease are either, 1. A morbid state of the SPLEEN; from which a *black vitiated* blood is conveyed to, and carried through, the liver by the *vena porta*, and its various ramifications, which in *this* viscus perform the office of arteries. Part of this morbid blood is carried from the liver into the *vena cava*, and the rest, in form of *bile*, is emptied by the *ductus communis choledochus* into the *duodenum*, from whence, by *vomiting*, it is sometimes forced into the stomach, and discharged by the mouth. Or,

§ 2424.

§ 2424. 2dly, The cause of melancholy is a too great *density* and *compactness* of the *red globules* of the *blood*, and of the globules of the *bile*: whence the colour of the blood, and of the *bile*, becomes *black*, or near to it. On this account the *bile* of persons under this distemper is called *atra bilis*, or *black bile*; and for the same reason the disease is called *melancholia*, a Greek word of the same signification, used by the ancients, because the humour, or *bile*, which melancholy persons threw up when they vomited, appeared very black.

§ 2425. This state of the *blood* and *bile* (§ 2424.) may be known, not only by the discourse, the complaints, and behaviour of the patient; but also by observing his countenance, which is *paler*, or *yellow*, or more *tawny*, or *livid*, than in health. His pulse is *weaker*, and *slower*; and his breathing *slower*: the heat of his body is likewise less, and his extreme parts colder than in time of health.

§ 2426. From the blood, in the state described, (§ 2424.) the *nervous fluid*, can never be secreted in a *sufficient* quantity, either by the *cerebrum*, or *cerebellum*. Hence arise the weakness of the pulse, the abatement of the vital heat, the fears, and the griefs, which afflict such patients.

§ 2427. The curative indications therefore are two, *viz.* 1. To prescribe such *alterative* medicines, as may change the state of the *blood*, and *bile*; such as may attenuate and dissolve the globules of both into less; for as this point is accomplished, the *blackness* of them will abate, and their natural colour return.

§ 2428. 2. The other curative indication is, to promote a more copious secretion of nervous fluid by both the brains, and a brisker motion of it through the nervous *tubuli*. As this is obtained,
the

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the fears and sadness will grow less, and the natural cheerfulness be recovered.

§ 2429. I shall now acquaint you with some different medicines which I have prescribed for *patients* under this disease with happy success.

HIST. I.

In the year 1717, in the month of *October*, I prescribed for a gentlewoman, aged about 50 years, the following medicines, which proved effectual to her cure :

℞ Summitat. centaur. minor. ℥ii. chalyb. cum sulphur. ppti. ℥i. castor. ℥i. sal absinth. ℥ii. mass. pilul. rufi ℥iii. ol. menth. gut. x. extract. gentian. q. f. m. f. pilulæ mediocres ; quarum capiat iii. vel iv. vesperi et mane.

℞ Rad. pæon. mar. suc. rad. angelic. Hispan. r. irid. florent. flor. lavendul. stœchados āā ℥i. caryophyl. nuc. moscat. āā ℥i. styrac. calamit. labdan. fuccin. balsam. tolu āā ℥ii. m. f. PULVIS : dein cum bombyce et panno sericeo formetur cucupha, super caput rasum gestanda.

HIST. II.

§ 2430. In the year 1719, in the month of *April*, I prescribed for a married woman, aged about forty-six years, the following medicines, which proved effectual :

℞ Castor. camphor. āā ʒss. gum. galban. sal martis Riv. āā ℥ii. speciei hieræ picr. ʒss. mass. pilul. è duobus, mass. pilul. rufi āā ℥ii. ol. absinth. ol. menth. āā gut. x. syr. de spinâ cervinâ q. f. m. f. pilulæ med. quarum capiat ii. vel iii. vesperi et mane, superbibend. haustum infusi salviæ.

§ 2431. I had ordered her to lose about six or eight ounces of blood, and to increase or decrease

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the dose of the pills, so as only to keep her body open.

HIST. III.

§ 2432. In the same year, in the month of *June*, I prescribed the following pills, with success, for a young woman aged twenty-three years. She had her *menses* very regularly, yet had been afflicted with an horrible melancholy for several months, and under perpetual fears and terrors.

℞ Sal martis Riverii ℥ii. castor. ʒiss. camphor. ʒss. gum. galbani ʒii. mass. pilul. Rufi ʒi. rad. zinzib. ℥i. sem. cardamom. ℥ii. assæœtid. croci ā ā ℥i. ol. succin. absinth. menth. ā ā gut. vii. extract. gentian. q. f. m. f. pilulæ mediocres; quarum capiat iii. vesperi et mane, superbibend. haust. infusi heder. terrestr. absentibus catamēniis.

HIST. IV.

§ 2433. In *September* 1736, I prescribed for a gentleman, who had been many months under a deep melancholy, the following pills, with the desired success.

℞ Rhubarb. aloes succotrin. ā ā ʒss. assæœtid. galban. myrrh ā ā ʒi. m. f. pilul. No. 48. quarum capiat iv. vesperi et mane, superbibend. haust. decoct. lign. sassafras.

§ 2434. I shall add the history of one case more.

HIST. V.

In *August* 1743, my advice was desired for [Mrs. MARY WILLIAMS] a young woman aged about twenty years, who, by a surprise, and vexation, through a violent passion of a gentlewoman, with whom she was, grew disordered in her senses, and fell into a despairing way; to such a degree that it was thought necessary to have her confined, and a strong careful person to be constantly with her, day and night.

She

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She had been vomited, blooded, blistered, and taken pills made of *pil. stomachic. et assæfætid.* &c.

§ 2435. *August* 22d, I wrote a prescription for her; but the medicines prescribed did not prove very beneficial.

§ 2436. *September* 27, 1748. I prescribed for her as follows, *viz.*

℞ Sal martis Riverii ℥ii. castor. ℞ss. camphor. ℞ss. gum. galban. ℥ii. mass. pil. Rufi. ℥i. sem. cardamom. ℥ii. rad. zinziber. assæfætid. croci ā ā ℥i. ol. succin. menth. absinth. ā ā gut. vii. extract. gentian. q. f. m. f. pilulæ mediocres; quarum capiat iii. primo mane (vel horâ undecimâ matutinâ) et horâ quintâ post meridiem, superbibendo ℥iv. pseudo theæ cum heder. terrestr. et cum sacchar. alb. edulcat, absentibus catameniis.

℞ Confect. Mithridat. ℞ss. aq. alexiter. simpl. ℥xiv. aq. menth. spirituof. syr. balsamic. ā ā ℥i. sp. nitr. dulc. gut. xx. tinct. thebaic. gut. v. vel vii. m. f. haustus paregoricus somno deficiente bibendus.

§ 2437. And with this prescription I sent a letter to Mr. *William Kelly* (her apothecary, in *Llandilo* in *Carmarthenshire*, in *South Wales*; where she was confined) with the following directions, *viz.*

“ If she cannot sleep, I advise you to give her
“ the composing draught about eight o’clock in
“ the evening, and if it proves ineffectual, then
“ gradually increase the number of the *anodine*
“ drops, till you find the dose that will effectually
“ procure sufficient sleep.

“ I shall be glad to be informed how she is about
“ the *new*, and *full* of the *moons*.

“ As to her DIET, let her eat moderately of
“ animal food, but only at dinner. *Mutton,*
“ *lamb,*

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" *lamb, veal, chicken, and young fowls* are the most proper sorts.

" Let her neither drink *wine*, nor any *malt liquors*; but let *river water*, milk-warm, with a tea-spoonful of the *sp. nitr. dulc.* to each pint, and sweetened to her palate with sugar, be her common drink at meals.

" And *cyder* (if it be not *flatulent*) mixed with *water*, she may sometimes drink. And she may eat *apples*, raw or roasted, as plentifully as she will. And *apple dumplings*, and apple puddings are good."

§ 2438. In answer to this I received a letter from Mr. *Kelly*, the apothecary, dated *Nov. 5. 1748*, in which he writes as follows, *viz.*

" Sir, your patient [*Mrs. Molly Williams*] has followed your prescriptions ever since.

" I find her this last month as well as ever she used to be.

" I should be glad to know how long she should continue her diet, &c.

" I am, Sir, &c. *Wm. Kelly.*"

§ 2439. IX. Of the *MANIA*, or *madness*. This is another *chronical* disease of the head, and appears to be a violent *agitation*, or *motion* of the *nervous fluid*, in the brain, and thence a *depravation* of the *imagination*, and judgment; attended with audaciousness or fury, but without a fever, and without fear.

§ 2440. There are several things in this distemper which deserve notice, and consideration: particularly, 1. The vast strength of the *muscles* of the patient.

2. A wonderful bearing of hunger and cold.

3. An almost constant wakefulness.

4. An extraordinary diminution of all the sensible excretions.

And

And 5thly, It must be noted, that (on dissecting bodies, which have died of this disease) the brain has been found *dry* and *hard*, and the *cortical* part of it *yellow*, and the vessels of it *turgid*.

§ 2441. These things (§ 2440.) duly considered, may lead us to apprehend, 1. That the nervous fluid is secreted, by the *brain*, in vast quantities, abundantly larger than in the time of health: it is so when the pulse is quicker than in health. 2. That the blood in *maniacal* persons, is in such a state as to yield *matter* for the secretion by the *brain* of the nervous *fluid*, in much greater quantity than in the time of health: there seems, therefore, to be too great a communication of the parts of the blood, so as to become fit matter for the *nervous secretion*.

§ 2442. I suppose the reason why some persons have a greater stock of spirits, or other nervous fluids more replete with those very subtle, moveable, and (if I may use the term) *active particles*, which render them more sprightly than others, is because their blood abounds more with such particles separable from it.

§ 2443. Hence (§ 2441, 2442.) arise the prodigious strength, and the wakefulness, and indurance of cold and hunger, which is so remarkable in *maniacal* patients.

§ 2444. The *curative* indications, therefore, are, 1. To alter the morbid state of the blood, which yields so much matter fit to constitute the fluid of the nerves. 2. To diminish the quantity of the nervous fluid. And 3dly, By remedies *external* and *internal*, to allay or remove the *fervour* of the *spirits*, or the *inordinate* motion of the *nervous fluid*.

§ 2445. And here I would observe, that the state of the patient's pulse, the degree of the vital heat, the *quantity* and *quality* of the daily natural
evacuations

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evacuations should be carefully observed; and also the *temperament* of the skin, i. e. whether the pores of the *epidermis* be open or shut.

§ 2446. In this distemper, when the patient is outrageous, and his pulse quick and strong, I advise the taking away blood in a small quantity, that is, about four ounces; and this evacuation to be repeated once a month, if the case should require it.

§ 2447. Instead of a formal stated purge, to be repeated once a week or oftener, I should advise a proper dose of an *attenuating, dissolvent, and laxative* medicine, to be given every morning, to keep the body always open; and thereby to make a gentle revulsion daily from the head: for this purpose the following is proper:

℞ Sal. nitrī ʒi. sal mirab. Glauber ʒi. gum. ammoniac. ʒss. dissolv. in aq. alexiter. simpl. (vel aq. menth. vulg. simpl.) ʒiv. dein adde syr. violar. ʒi. syr. è succo limon. ʒss. et f. mistura, pro duabus, vel tribus, vel quatuor dosibus, quarum una primo mane singulis diebus exhibeatur.

And in the afternoon I should direct such a draught as the following:

℞ Sal. nitr. ʒss. vel ʒi. tartar. crud. alb. ʒss. vel ʒii. gum. ammoniac. gr. vi. vel viii. vel x. aq. menth. vulg. simpl. ʒiss. mellis ʒss. m. f. haustus horâ sextâ vespertinâ bibendus.

§ 2448. I would forbid the patient all sorts of *animal* food, and allow only a vegetable diet, and advise the drinking freely of barley-water, or apple-whey, or of a tea made with *ground-ivy*; and direct all his drinks, except the apple-whey, to be moderately acidulated with a sufficient quantity of drops of the *sp. vitriol.*

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§ 2449. Outwardly, I would advise that his head be kept shaved, and daily rubbed with the following liniment:

R Succ. heder. terrestr. ℥i. ol. olivar. ℥iss.

Sperm. ceti ℥ss. aceti ℥i. m. f. linimentum.

§ 2450. And I would sometimes order the head to be fomented cum aceto *per se* parum tepefacto.

§ 2451. X. Of DEAFNESS. The most frequent causes of this complaint, are, 1. An obstruction of the passage to the *tympanum* by *wax, dust, &c.* This may be known by inspection, and may be cured by filling the cavities of the ears, every evening, with *warm water per se*; the head being put into a proper posture, for the cavity of the ear to receive the liquor. The adjacent muscles must be gently moved *quaquaversum*, the head being kept in the same posture for about a minute or two, that the liquor may sink to the bottom of the cavity; and then the head may be put into an opposite or contrary posture, that the liquor may run again out of it.

§ 2452. There is no occasion for the use of a *syringe* to convey any liquid medicine into the ear; because, if the head is in a proper posture, the liquor will pass into any recesses into which a *syringe* can inject it.

§ 2453. Instead of mere *water*, one or other of the following mixtures may be used, *viz.*

R Sapon. vulg. *vel* mollis, *vel* duri ℥ss. *vel* ℥i. aq. fluvial. ℥i. et f. mistura; *vel*,

R Sal tartari gr. viii. aq. fluvial. ℥i. et f. mistura ad usum eundem; *vel*,

R Mucilag. ten. rad. althææ ℥i. sal tartar. ℥ss. et f. mistura; *vel*,

R Mucilag. ten. rad. althææ ℥vii. mell. defpumat. ℥i. m.

§ 2454. All

§ 2454. All these mixtures (§ 2453.) have a quality dissolvent of unctuous substances; and therefore are proper remedies against deafness produced by the cause now under our consideration. Though I have always found pure water effectual myself, and in others to whom I have advised it.

§ 2455. 2. Another cause of *deafness* may be a *dry intemperies* of the *tympanum* of the ear.

§ 2456. When a person is free from deafness, and the ear in right order, the various motions communicated to the external air are carried to the *tympanum* of the ear, and put into *correspondent* motions, which are communicated to the air which subsists in the inner cavity of the ear, and thence to the auditory nerves, and through them to the *sensorium commune*.

§ 2457. Thus actual hearing is produced, as I apprehend. But when the *tympanum* is under a *dry intemperies*, and becomes *rigid*, it is not capable of motions correspondent to those in the external air, produced by the different sounds which happen in it: consequently motions correspondent to those in the external air cannot be communicated to the air within the *tympanum*, and therefore suitable impressions cannot be made on the extremities of the *auditory* nerves, nor will the ideas (that would otherwise have resulted from them) be conveyed to the *sensorium commune*. This is a plain reason why persons become deaf under a *dry intemperies* of the *tympanum*; and it is on this account that deafness becomes a symptom in fevers.

§ 2458. When this (§ 2457.) is the case, it may be known by observing a *dry intemperies* in the parts adjacent, and that no wax is secreted from the blood into the cavity of the ears.

§ 2459. In this case *warm* water, put into the ears (in the manner before described) may be as effectual to remove the rigidity of the fibres, which

compose the *tympanum*, and the dry *intemperies* of it, as to relax the rigid fibres of a *fiddle-string*: or else the following mixture may be advised, *viz.*

R Sal. nitri gr. iv. vel vi. mucilag. ten. rad. althææ ʒvii. mellis despumat. ʒi. et f. mistura, cujus pars sufficiens tempore vespertino in aures infundatur.

§ 2460. 3. Another cause of *deafness* may be a too moist *intemperies* of the *tympanum*. And it seems pretty easy to understand, that if the *interstitia* of the fibres of the *tympanum* are too replete with humid or aqueous particles, they must hinder the vibrating motion of that important membrane, and render it incapable of communicating to the air, subsisting in the inner cavity of the ear, those motions which happen in the external air; and thus occasion *deafness*: as too much moisture in *fiddle-strings* will prevent their *vibrating*, and their moving, or being moved, as they might be when in a due state or temperament.

§ 2461. When this is the case, it may be known by the signs of a general *laxity* of the animal vessels, and by the ear-wax being too thin.

§ 2462. A decoction of the *lign. sassafras ras.* vel *lign. guaiac. ras.* or an infusion of *rosemary* or *sage*, may contribute to remove the too moist *intemperies* of the *tympanum*; or holding the ear over the steam of a *tincture* of *gum. mastich.* or of *brandy*, or of *sp. vin. rect.* or putting two, three, or four drops of brandy into each ear, twice or thrice a day, may be of service.

§ 2463. N. B. When the cause of *deafness* is a dry *intemperies* of the ear, the use of the proper remedies must be left off, as soon as the hearing returns, lest its contrary quality should be brought into the *tympanum*.

And so in the case of a too moist *intemperies*, we must desist from the use of the remedies as soon as the

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the hearing is recovered, lest we render the fibres of the *tympanum* rigid.

§ 2464. DEAFNESS from the foregoing causes is curable; but,

4thly, An obstruction of the *auditory* nerves may produce deafness; as an obstruction of the *optic* NERVES produces *blindness*, even that sort of blindness we call the *gutta serena*.

§ 2465. Deafness from this cause (§ 2464.) is hard to be cured. But if it be curable, it only can be cured by such medicines as attenuate the blood, lymph, and nervous fluid; and by attenuating them remove the obstructions, which have happened in any of the three general sorts of animal vessels.

§ 2466. *Æthiops mineral.* millepedes, rad. hellebor. nigri and its tincture, antimony and its tincture, internally taken, are proper remedies; and externally, the aq. opthalmic. saphirin. mixed with an equal part of aq. fontan. and put warm into the ears, I think a proper remedy.

§ 2467. If the deafness is the consequence of a RUPTURE of the *tympanum* by a wound, or impostumation, I take the case to be incurable.

§ 2468. XI. Of the GUTTA SERENA, This is an abolition, or loss of sight, without any external or apparent fault in the eyes.

The cause is an obstruction of the *optic* NERVES, or a compression of them by some adjacent tumour, &c. The internal medicines advised above (§ 2466.) may be tried, together with sternutatives. But the prospect of affecting a cure is, indeed, very little.

§ 2469. XII. Of HOARSENESS. I need not describe this to any one: but I may observe to you, that it proceeds either from a too great *driness* and *roughness*, or from too great moisture of those

parts by which the voice is modulated, and by which words are pronounced.

§ 2470. It deserves notice, that by much speaking, or loud speaking, bawling, or screaming, an hoarseness may be brought on almost at any time. This proceeds from too great *driness* of the parts; but when a hoarseness attends cattarrhus diseases, it is occasioned by too great moisture; or the parts used in modulating the voice have their *interstitia* too replete with *lymph*, &c.

§ 2471. XIII. Of the *APTHÆ* in the mouth. I have already (§ 559.) given an account of the causes of these little ulcers in the mouth, and of the proper remedies, and therefore I need not say more of them.

§ 2472. XIV. *APHONIA* is another disease belonging to the head. This is the loss of speech, or of the capacity of speaking, or pronouncing words.

§ 2473. Considered in itself, this is a disease of those particular parts, by the action of which words are spoken.

But generally it is the symptom of some other disease, *e. g. apoplexia, paralysis, epilepsy*, &c. and happens in some fevers. To these diseases therefore I refer you for the *causes* and *cure* of this disease.

END OF LECTURE XX.

LECTURE XXI.

I. On the *chronical Diseases of the THORAX*, viz.

1. *Coughs*. 2. *The Asthma*. 3. *Phthisis pulmonalis*, or *Consumption*. 4. *Ulcers of the Lungs*.
5. *Hæmoptoe*, or *Spitting of Blood*. 6. *Empyema*.
7. *Palpitation of the Heart*. 8. *Hydrops pectoris*, or *Dropsy of the Thorax*.

II. On the *chronical Diseases of the ABDOMEN*, viz.

1. *Singultus*, or *Hiccup*. 2. *Cardialgia*, or *Heartburn*. 3. *Nauseas*, or *Vomitings*. 4. *Inappetentia*, or *Loss of Appetite*. 5. *Pains of the Stomach*. 6. *Worms*. 7. *Pica*, *Citta*, or *depraved Appetite*. 8. *Cynodes orexis*, or *canine Appetite*. 9. *Cholera morbus*. 10. *Icterus*, or *the jaundice*. 11. *Costiveness*. 12. *Lienteria*, or *the Lientery*. 13. *Passio celiaca*. 14. *Diarrhæa*. 15. *Dysenteria*, or *Dysentery*.

§ 2474. II. **H**AVING considered the principal *chronical diseases of the head*, I proceed to discourse on the chief of these of the *THORAX*, viz.

§ 2475. I. *The COUGH*. The most frequent causes of this disease are either, 1. Some *lymphatic humours*, more or less *acrid* and stimulating, which fall on the *aspera arteria*. Thus when a person has taken cold, and, in consequence thereof, has a *catarrh*, or *defluxion of rheum* on his throat, then a cough follows: this is the case in recent coughs, &c.

§ 2476. 2. *Lymphatic humours*, which had been excreted into the *air-vesicles* of the lungs, and lodged there, but are raised by the air in *expiration*, and brought up into the mouth, excite a cough;

and in like manner, if *pus* or *blood* be raised, or brought up from the lungs, it will in its passage to the mouth excite a coughing.

§ 2477. 3. A *coughing* may likewise be brought on by the fumes of *charcoal*, or of *sulphur*, or by taking *snuff*, and by various other incidental occasions. But these things are not now the subject of our consideration; but that *COUGH* which proceeds from one or other of the two causes I have first mentioned.

§ 2478. And here I must observe, that a cough rarely happens to *plethorick* persons, or those of a *sanguine* constitution, who have their full quantity of blood, and the action of the heart and arteries duly strong.

§ 2479. The common occasions of *COLDS* and *coughs*, and other *catarrhus* disorders, are a *cold* or a *moist* AIR, when the blood is *poor* and weak, and when there is not a due force in the vital organs.

§ 2480. People subject to coughs have not too much blood in quantity, nor the action of their heart and arteries too strong. *BLEEDING*, therefore, is not only needless but improper; and in my own practice I never bleed in such cases; and yet, through the direction and blessing of God, have had a very happy series of successes with patients under this disease.

§ 2481. The *curative* indications, in my opinion, are, 1. To maintain the *tenuity* of the *blood*, to remove or prevent a *viscid* quality, and the *access* of a *fever*, which frequently are effects of catching cold, and of a diminished perspiration; and then, 2dly, To *strengthen* the action of the heart and arteries.

§ 2482. These are the things I have in my view, and endeavour to accomplish in my practice. And for these purposes I prescribe *saline* DRAUGHTS, or JULEPS; and frequently direct some *nitrous* salt,

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salt, and a fixed alkaline salt to be mixed with the *succus limonum*, or *sp. nitr. dulc.* for bringing the medicine to a *neutral* quality.

§ 2483. Sometimes I order the *balsam. è Mecha*, or *balsam. capiv. per se*, with sugar, or a solution of them for making a pectoral mixture; or a solution of *sperma ceti*, or a decoction of figs *per se*.

§ 2484. And when I would corroborate the solids, and increase the strength of the vital organs, I prescribe some *chalybeate*; and if there be an abatement or loss of appetite, I would prescribe *elixir vitrioli* or some *bitters*.

§ 2485. I frequently direct *pectoral linctusses*, compounded of some or other of the following particulars, e. g. *conserv. fruct. cynosbat. rob. vel syrupus bacc. sambuc. syr. capillor. veneris. syr. balsamic. syr. è succo limonum flores, vel lac sulphuris, sperm. ceti. ol. amygdal. dulc. vel potius ol. olivar.*

Histories of the cases of patients under this disease, may be seen in *Chap. 15. of my 2d Vol. on Fevers*.

§ 2486. II. The ASTHMA belongs to this class of diseases, but having considered it among the *acute* distempers (§ 2301.), on the account that it sometimes puts a period to life in a few days, I shall say nothing of it here.

§ 2487. III. The PHTHISIS, or *pulmonary consumption*. This is a *chronical* distemper of the THORAX, in which the *lobes* of the *lungs* are especially affected. It most frequently happens to persons between the *eighteenth* and *thirty-fifth* year of life, and is attended with an *hectic* fever, which is worse after *eating*.

§ 2488. This distemper is generally the effect of those causes which produce the *cough*, when they continue to subsist, and the *cough* remains; for in such a case the blood becomes more *viscid* and *acrid*, and disposed to produce *tubercles* in the lungs,

lungs, which as they increase bring on a shortness of breath, a quick and difficult respiration. When these *tubercles* suppurate and break, they constitute another distemper in the THORAX, *viz.*

§ 2489. IV. ULCERS of the *lungs*, and where these happen, the patient, I think, may truly be said to have a confirmed or complete PHTHISIS.

And therefore I shall consider the PHTHISIS as inclusive of such *ulcers*.

§ 2490. And gentlemen, you may know, when there are *ulcers* in the *lungs*, by observing and considering the *quality* of the matter that is expectorated or discharged from the *lungs* by *spitting*. If the matter is *purulent*, if it be a *pus*, is *fetid*, and sinks in water, you may conclude there are *ulcers* in the *lungs*.

§ 2491. As to the state of things in a person under a *phthisis*, be pleased to observe the following particulars, *viz.*

1. That the blood generally has two qualities very morbid, subsisting at the same time, *viz.* the *viscid* and the *acrimonious*.
2. That the vessels are generally *too lax*, and their diameters too much enlarged.
3. That from the *first morbid* quality results *infarctions*, or obstructions of the *lungs*, and the *hectic* fever, and a difficulty of breathing. And that by the second morbid quality are produced the laxity of the vessels, and *colliquative sweats*, or *urines*, or *stools*.

§ 2492. The *curative* indications, therefore, are, by proper ALTERATIVE medicines to remove both the morbid *qualities*, and to strengthen the vessels. And I may observe, that generally those remedies which are proper against a *cough*, are also proper in a PHTHISIS.

I will give you a few instances of such cases.

HIST. I.

§ 2493. In June 1725, my advice was desired for a girl, aged eight years, who had been long in an ill state of health; was afflicted with a violent cough, great shortness of breath, loss of appetite, and loss of flesh, with an *hectic* fever.

§ 2494. I prescribed for her the following medicine, which soon relieved her; she continued the use of it some weeks, and without any other remedy recovered perfect health.

R Sal prunell. ℥ii. tartar. vitriolat. ℥ss. aq. lact. alexiter ℥iii. aq. cinam. hord. fyr. mart. spirituos. ā ā ℥ii. fyr. de quinque rad. aperientibus ℥i. et f. mistura, cujus capiat cochl. i. largum vesperi et mane.

§ 2495. The *syrupus martis spirituosus* was made in the following manner, viz.

R Sal martis communis ℥ii.
Aq. bryon. compos. ℥viii.
Sacchar. chrystallin. ℥xii. m. et sine coctione
f. syrupus.

§ 2496. Here observe, that every ounce of this *syrup* contained six grains of the *sal martis*; and that the half pint mixture, prescribed for this child, contained twelve grains of it; and every ounce of the medicine one grain and an half, which was the quantity she daily took.

HIST. II.

§ 2497. In November the same year, I was sent for to an unmarried woman, aged thirty-six years, who laboured under an *hectic* fever, loss of appetite, suppression of her *meneses*, *shortness* of breath, hysteric symptoms, a violent cough, and spitting of blood, sometimes in considerable quantities. I prescribed for her the following medicines, which were repeated; and by which, with the blessing of God, she recovered.

R Balsam. capiv. ℥ss. capiat gut. xv. vesp. et man. cum pulv. sacchar. alb. mistas.

R Rad,

R Rad. enulæ campan. lign. saffrafras ras. lign. guaiac. ras. ā ā ʒss. clausē coq. (in olla figulina) cum aq. benedict. simpl. lbiii. ad lbii. sub finem decoctionis addendo sal prunell. sal absinth. ā ā ʒss. sal martis Riverii ʒss. liquori colato adde syr. balsamic. ʒi. et f. apozema; cujus capiat cochl. v. bis terve in die.

HIST. III.

§ 2498. For another patient that had *ulcers* in his lungs, and who sometimes expectorated abundantly a matter in colour resembling a pale yolk of an egg, and sometimes a sort of purulent matter like what is discharged at external ulcers, and sometimes spit blood; was restless day and night, fetched his breath very short and quick; was very hot and thirsty for several hours every day; sometimes had a *diarrhœa*, and was sometimes free from it; and had an abhorrence of all aliment, I prescribed as follows:

R Balsam. capiv. ʒi. capiat gut. xx. vesperi et mane cum sacchar. alb. mistas.

R P. rad. tormentill. ʒii. antimon. diaphoret. coccinell. ā ā ʒi. sal absinth. sal prunell. ā ā ʒss. aq. lact. alexiter. ʒvi. aq. puleg. ʒiss. syr. de mecon. ʒss. et f. MISTURA, cujus capiat cochl. i. largum omni quadrihorio, præsentē vel absente febre, phialâ prius agitâtâ.

R Sp. vitriol. tinct. croci ā ā ʒss. et f. MISTURA, cujus capiat subinde in haust. infus. rad. bardan. major. vel heder. terrestr. tot guttas quot sufficiant ad saporem acidulum, præcipue siti urgente.

§ 2499. About six days after, his wife came and told me that he took of both sorts of the drops according to my directions, and a dose of the *mixture* every four hours, night and day till it was

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was finished: he also said, that as soon as he had taken twice of the *julep* he found himself a great deal better; that he slept well from that time, breathed very easy; that his cough was abated; that what he spit up became *white*; and that he had recovered his appetite.

§ 2500. I ordered the medicines to be repeated, and he recovered without any other remedy.

§ 2501. Here let me observe, that if the respiration grows easy, while the cough and spitting abate, it is a sure token that the patient is recovering his health, as I have constantly observed.

§ 2502. The next distemper of the *thorax* is, V. The HÆMOPTOE, or *spitting of blood*. This generally is the consequence of a rupture of some sanguine vessel in the lungs, or of a great relaxation of some *lymphatic* arteries, which admit of the blood's passing from the sanguine arteries, through them, into the air-vesicles of the lungs. It is generally preceded by an *acrimonious dissolvent* quality, which had some time subsisted in the blood.

§ 2503. We may know whether the blood spit out comes from the lungs, by observing whether it is *frothy* or not. If it is not *frothy*, we may safely conclude it does not come from the lungs: for air always mixes with the blood extravasated in the LUNGS, and produces *bubbles* in it, which make it *frothy*.

§ 2504. This disease rarely happens, unless in consumptive persons, or such as have been long under a *scorbutic* habit of body.

§ 2505. The *balsamum restringens*, described in my treatise on the *small-pox*, is a very proper remedy in this disease; and in my experience has proved very effectual. The following medicines also are proper, *viz.*

R Sal prunell. ʒi. sal martis com. tartari
vitriolati, āā ʒss. aq. menth. vulg. simpl
3vi

℥vi. sacchar. alb. q. s. ad saporem gratum,
m. f. julepum, cujus capiat cochl. i. vel ii.
bis terve die, superbibendo ℥iii. theæ, cum
rad. tormentill.

R Sp. vitriol. ℥ss. capiat in omni haustu. aq.
fluvial. tot guttas quot sufficiant ad gratam
aciditatem pro potu communi, quamdiu
fuerit opus.

§ 2506. VI. The EMPYEMA, which is a disease of the *thorax*, consisting of a *collection* or a quantity of *pus*, or a *purulent matter* lodged in the cavity of the THORAX. The productive cause of it is a discharge of purulent matter from some *impotumation*, formed and broke within the cavity of the *thorax*.

§ 2507. The signs by which we may know that our patient has an *empyema* are chiefly these :

1. A pain in the *thorax*.
2. A difficulty of breathing; and such that the patient can breathe only in an erect posture.
3. An heaviness on the *diaphragm*.
4. An incapacity of lying on any side. Here be pleased to observe, that in that part of the *thorax*, on which the patient can bear to lie, THERE is the collection of the *purulent matter*, and the seat of the *empyema* : for it is impossible for him to lie on the well side, because that posture brings the mass of purulent matter to press, and rest on the membrane called *mediastinum*, which he can never sustain.
5. A difficulty in the action of the *diaphragm* upwards, on the account of the weight that lies upon it.
6. A difficulty in the dilatation of the *lungs* in inspiration.
7. A perception in the fluctuation of matter in the *thorax* upon motion.
8. The access of a slow fever.

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§ 2508. Those attenuating *alterants*, which are proper to prevent, or remove a *viscid* quality from the animal fluids, and to free and preserve the body from *febrile* symptoms, are very proper remedies to relieve persons under this disorder. And such EVACUANTS, as gently promote *expectoration*, and *evacuation* by *urine* and *stool*, may be of service. But the cure is best attempted by making a *passage* (with a suitable instrument) into the *cavity* of the *thorax*, between the 4th and 5th, or between the 5th and 6th ribs, reckoning from the lower ribs, through which the *purulent* matter may be discharged. Or else by ISSUES made in the same places.

§ 2509. VII. The PALPITATION of the HEART is another disease belonging to the *thorax*. This is an irregular inordinate action, or motion of the heart, when its *systoles* and *diastoles* are performed with great vehemence, an augmented force far beyond what is usual when this vital organ is in a due state of health.

§ 2510. This disease admits of a great variety of degrees, both as to the *force* and *times* of the motions of the heart. It often is hardly discerned by the pulse in the wrist, but the patient plainly perceives it, and sometimes with very great uneasiness; and we may often feel it strongly, by applying the hand to the region of the heart, when we cannot discover it by the pulse. And when the palpitation is very strong, the motion of the heart often makes a sound, which sometimes may be heard.

§ 2511. The cause of this disease is either,

I. Obstructions in the heart from coagulations of the blood there, or from *polypose* concretions in the beginning of the *aorta*. When the palpitation of the heart is the effect of *polypose* concretions, it generally comes on gradually, and is as permanent

as

as those concretions. Or, 2dly, The palpitation of the heart may result from *obstructions* in the more distant arteries, occasioned by a *viscid* and saline humour or quality in the blood; and this indeed is the most frequent productive cause of the disease.

§ 2512. But whichever of these be the particular cause subsisting in this or that patient, yet the *curative* indications are the same, *viz.* by proper *alterative* medicines to dissolve any morbid cohesions in the blood, to attenuate the animal fluids, and obtain an easy and free circulation of them through the minutest of their proper vessels.

HIST. I.

§ 2513. In *December* 1728, for a gentleman, a hard drinker, aged twenty-six years, under this disease, who had an *intermitting* pulse, very unequal both as to time and force, and was also attended with a great difficulty of breathing, and a tickling cough, I prescribed the following remedies with great success:

Mittatur sanguis è brachio ad ℥xii. quamprimum.

R Camphor. ℥ss. sp. lavendul. c. ℥ii. opt. miscantur, dein adde tinct. castor. sp. nitri dulc. ā ā ℥i. et f. mistura cardiaca, cujus capiat gut. xl. pro rehatâ in haust. aq. puræ cum vin. alb. mistæ.

R Rad. serpentar. Virg. ʒss. nuc. mosc. ℥ss. cinnab. nativ. ʒi. milliped. ʒii. castor. Russiæ, croci Angl. ā ā ℥ss. camphor. gr. v. balsam. tolu. ʒss. balsam. peruv. q. f. m. f. massa pilul. et è singulis ʒi. formentur pilulæ ix. quarum capiat iv. quartis vel sextis horis.

HIST. II.

§ 2514. In *April* 1733, a young gentleman, aged near twenty-five years, desired my advice. He had been, through the four preceding years,

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in a very ill state as to his health: he complained that he often had the PALPITATION of his heart, especially when in bed, and when he walked; and of frequent pains in his head; a dimness before his eyes; frequent tremors, and sometimes twitching in his arms and thighs, with exceeding *lowness* of his spirits, and a want of appetite.

§ 2515. I prescribed for him the following medicines, *viz.*

℞ Sal martis River. gr. iii. sal prunell. gr. vii. rad. gentian. ℥ss. camphor. gr. iii. fyr. balsamic. q. f. m. f. bolus inaurandus, et vesperi et mane fumendus, superbibend. cochl. iv. julepi sequentis.

℞ Aq. cinam. hord. ℥viiss. aq. cinam. fort. ℥vi. sp. lavendul. comp. ℥ii. sp. nitri dulc. gut. xl. fyr. balsamic. ℥ss. m. f. julepum.

℞ Aq. cinam. hord. ℥viiss. aq. pœon. comp. ℥vi. gas sulphuris recenter ppti. ℥ii. sp. lavendul. gut. xl. sacchar. albiss. q. f. ad saporem gratum m. f. julepum: cujus capiat cochl. i. vel ii. in haustu largo aquæ puræ, ut opus fuerit contra languores.

§ 2516. Three days after, I visited him again, and found all his symptoms greatly abated: and these medicines, with some little variations, were effectual to his recovery.

§ 2517. VIII. HYDROPS PECTORIS, a *dropsy of the thorax*. This is a collection of water in the cavity of the thorax, lodging on the *diaphragm*. It is attended with several of the signs, which are observable in an *empyëma*, and may easily be mistaken for that disease, if the antecedent state of the patient be not taken into consideration. But if (on examination) you find the patient of a *leucopblegmatic* habit of body, and one who has not been afflicted with a *pleurisy* nor *peripneumony*, nor with an inflammation of any internal part of the

thorax, you may conclude that the distemper is not an *empyëma*, but the *hydrops pectoris*.

§ 2518. The water in this disease may be let out by a *paracentesis*. And those internal medicines are proper in this case, which are proper in the *dropfy ascites*, of which hereafter.

§ 2519. III. I come now to consider the *chronical* diseases of the *abdomen*. The principal of these are the following :

I. SINGULTUS, or the *biccup*. This is a *convulsive* motion of the OESOPHAGUS and STOMACH, occasioned sometimes by flatulencies, or *elastic* AIR pressing against the nerves ; but more frequently by some *acid* matter, or humour, at the extremities of the nerves affected, which excites the *convulsive* contractions of the membranes and *muscles* affected.

§ 2520. The *curative* indication here leads us to advise,

1. The plentiful use of *diluents*. The drinking plentifully of water, *warm* or *cold*, will often cure it.

2. To advise such *alterative* medicines as may alter the nature of the *acid stimulating* matter. The *biccoughs* which happen in *acute* diseases are a symptom of a different nature, resulting, as other convulsions, in the progress of fevers, from *depletion*, and require the same remedies as these convulsions.

§. 2521. II. The CARDIALGIA, or *heart-burn*, proceeds from an *acid* matter lodged in the stomach. If this be of an *acid* kind, then the *sal tartari*, *oleum tartari per deliquium*, *creta alba*, and such like, are the proper remedies. But if the morbid humour be of an *alkaline* nature, then eating apples, or other *mild acids*, are the suitable medicines. I knew a gentlewoman, who was frequently very much troubled with the *heart-burn*

in

in the time of her pregnancy, and was always relieved by eating *apples*.

§ 2522. I may here observe to you, that if the *heart-burn* is removed by eating apples, or by any other mild *acids*, we may thence infer, that the morbid humour in the stomach of such a person is of an *alkaline* nature. But if the HEART-BURN is removable by medicines of an *alkaline* quality, (which is most frequently the case) we are to conclude that the morbid humour was of an *acid* kind. Whence I think it appears, that an *acid* quality more frequently subsists in the stomach and intestines, than is commonly apprehended.

§ 2523. III. NAUSEAS and VOMITINGS are diseases of the *stomach*, produced by the like causes which produced the two foregoing, and are to be cured by suitable *alteratives*.

§ 2524. IV. INAPPETENTIA, or the *loss of appetite* to food, is another disease of the stomach; because the sensation of hunger is there seated, and there the first digestion is performed.

§ 2525. The want of appetite, in my apprehension, is the effect of a deficiency of those particles in the *saliva*, and other digestive humours, which in time of health are secreted from the blood in such a quantity, as, in an empty stomach, excites the sensation we call *hunger*; and as do likewise sufficiently digest, that is, *dissolve* the parts of the aliments received into the stomach, into a minuteness fit for the purposes of nutrition. For if there happens no deficiency in the quantity of such dissolving particles secreted from the blood, there can happen no abatement of the appetite to food, nor a bad digestion; that is, there cannot be an insufficient comminution of the aliments for the purpose of nutrition.

§ 2526. The remedies for removing this disease are those medicines which promote the secre-

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tion from the blood of proper digestive or dissolvent particles.

§ 2527. We cannot know the figure, or construction of such *particles*:

But some things we know concerning them, *e. g.*
1. That there is a great variety of sorts of them; that they are different in different bodies, which is the reason why one person can digest a kind of food which another cannot; and they often become different in the same bodies at different times of life, which is the reason why they come to like, and to be able to digest some sorts of aliment, which in former years they could not digest nor love.

§ 2528. 2. We know when the quantity of the *digestive particles*, diffused in our digestive humours, is *too great* or *too little*: that it is *too great* when a person covets an unusual quantity of aliment, or more than is needful for his time of life and bulk of body. In the time of youth (till the body has attained its proper stature and has done growing) more aliment is wanted than afterwards.

§ 2529. And we know that the quantity of the digestive particles is *too little*, when the appetite abates, and the person does not care to take his usual quantity, or so much food as by experience he has found needful to maintain his strength and bulk of body.

§ 2530. 3. We know by experience what sort of remedies are proper, and like to be beneficial, when the quantity of the digestive particles is either *too little* or *too great*. Thus, as in the disease now under our consideration the quantity of the digestive particles is *too little*, we know that *bitters*, *e. g.* *absinth. rad. gentian. fol. marrub. alb. flor. chamæmel. sem. cardui benedict. flaved. cortic. aurant.* promote a secretion of digestive particles from the blood. We know likewise that *acids* (*vegetable* and

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and chemical) e. g. apples, succ. limon. acetum, sp. vitriol. elixir. vitriol. &c. are sometimes proper; and that exercise conduces to the same end.

§ 2531. V. PAINS of the STOMACH. These may be produced by various causes, e. g.

1. *Worms.*

2. *Flatulencies*, or *elastic* air, distending the stomach, and making painful pressures against the extremities of the nerves situated in its membranes.

3. *Acrid particles*, conveyed into the cavity of the stomach with the digestive humours secreted from the blood.

4. *Acrid particles* secreted from the blood, and conveyed by lymphatic arteries to the *superficies*, or to the covering membrane of the part affected; which, being *too bulky* to pass through the pores of the covering membrane, are thrust to an immediate contact with the extremities of the next adjacent nerves, and excite pain.

§ 2532. As to the cure of this complaint :

1. Pains of the stomach from the first cause mentioned, *worms*, are to be cured by medicines which destroy worms, and carry them down through the intestines, and out of the body by stool, e. g. æthiops mineral. vel cinnab. nativ. cum conserv. absinth. &c.

§ 2533. 2. Pains from *wind*, or *flatulencies*, are to be removed by such remedies as may absorb the particles of *air*, and reduce them to a state of *inactivity*, and put a stop to any ferment that may happen in the contents of the stomach. For these purposes such a draught as the following is proper :

R Cretæ albæ pulveratæ ℥i. nucis mosc. gr. v. aq. fluvial. ℥iiiss. sp. vin. tenuioris ℥ss. sacchar. crystallin. gr. v. m. f. haustus calidè forbendus,

§ 2534. 3. Pains produced in the stomach by *acrid particles*, conveyed into it with the *ingesta*, are to be removed with *diluents*.

§ 2535. 4. *Pains*, which are the effects of *acrid* pungent particles secreted from the blood, and conveyed to the nerves affected, under their covering membrane (as is the case when the *gout* is in the stomach) are removed with the greatest difficulty; yet are curable, because the particles of proper medicines will pervade the pores of the covering membrane, and act upon the morbid particles. Some medicines certainly afford a sort of *sheathing* to the *acrid* particles, and give a speedy relief to the patient, and a convenient opportunity for his taking those *alterative* medicines, which may free the blood from the *morbid* quality which occasioned his pains.

§ 2536. For cases of this sort (§ 2535.) and remedies, which, in experience, have proved effectual for the cure of this disease of the stomach, I may refer you to Hist. 23, 24, 25. 28, 29. 31. in my *Treatise on painful Distempers*.

§ 2537. VI. WORMS in the *intestines*. Persons of all ages are subject to them; but *children* are more frequently troubled with them, on account of the *weaker tone of their fibres*, and their *viscid farinaceous diet*, which affords a suitable *nidus* in the intestines for the *ova*, which there produce worms.

§ 2538. The *signs* by which they are generally supposed to exist, are, disturbed sleep, itching of the nose, sour belchings, stinking breath, a cough, vomitings, too little, or (which is *oftener* the case) too great appetite, pains in the belly, attended with swelling and hardness thereof, stools loose and mucous. But the *only infallible* sign is, an excretion of them either upwards or downwards.

§ 2539. The *cure* may be effected by such medicines as will kill those insects, promote their expulsion

pulsion out of the body, and strengthen the constitution. Such are *æthiops mineral. cinnab. nativ. sem. santonic. musc. corallin. mercur. dulcis, resina scammonii, chalybeates*, &c. Glysters of sweet oil have been very serviceable, where the worms have been lodged in or near the *rectum*.

§ 2540. VII. The *PICA*, or *CITTA*, which is a *depraved appetite*: in which persons covet to eat and drink things, which are not proper aliments for human bodies, as some young girls are fond of eating *cinders, coals, tobacco-pipes*, &c. and as women with child sometimes have a strong desire after things to which before they had an aversion.

§ 2541. The *CAUSE* of the *PICA* in girls [as I take it] is a very *acrimonious* and *viscid* quality in the blood. I say *acrimonious*, because of the continual irritation of the nerves of the stomach by the humours secreted in it: and a *viscid* quality, because of the *obstructions* which such patients are troubled with.

§ 2542. The *LONGINGS* of women with child are somewhat different; and are the effect of a *change* in the quality of their blood in the time of their pregnancy, and to a change in the *digestive* humours secreted from it which go into the stomach.

§ 2543. But the reason why one breeding woman earnestly longs for this particular thing, and another for that, is too curious an inquiry, and of very little advantage. However, I would observe, that it is generally necessary that a woman's longings, in the time of her pregnancy, be satisfied, on the account of the frequent sad effects of a disappointment.

§ 2544. But when the *PICA* happens to girls, we should prescribe those *alterative* medicines which may free the blood from those *morbid* qualities on which it depends, *e. g.*

R Sal prunell. ℥ii. sal martis ℥i. vel ℥ii aq.
puleg. simpl. ℥v. aq. pulleg. spirituos. ℥i.
sp. nitr. dulc. ℥i. sacchar. alb. q. f. ad sapo-
rem gratum: m. f. julepum; cujus capiat
cochl. i. vel ii. bis in die.

§ 2545. VIII. The CYNODES OREXIS, five *appetit* *caninus*, i. e. the *dog-like hunger*, is another disease of the stomach. This is an extraordinary hunger, not long satisfied even by large quantities of aliment.

§ 2546. The cause productive of it is a very dissolvent *acrimony* in the digestive humours, especially in those immediately secreted into the stomach; which dissolves the aliments soon after they are received into the stomach; and which so much comminutes the parts of the aliments, that they pass through the blood, and out of the body without contributing much to the increase of its bulk or weight.

§ 2547. But this quality of the digestive humours is derived from the blood, and shews that the morbid quality which subsists in it, is of a very *acid* and *dissolvent* nature. And indeed, if persons under this disease did not feed abundantly, the fluids would corrode and destroy their containing vessels.

§ 2548. The *curative* indications, therefore, are by proper *alterative* medicines to abolish the *acrimonious* quality of the humours secreted into the stomach, and to destroy the *acrimony* of the blood.

For these purposes, *antimony* crude, *antimon. diaphoret. æthiop. mineral.* giving at the same time *aq. calcis*, are proper remedies.

§ 2549. But if the *alterative* medicines mentioned prove ineffectual, I would recommend to the patient a spoonful, or two or more, night and morning, of the *fat* which drops from a breast of
mutton,

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mutton, well flowered, and roasted without salt, which he should drink as warm as he can conveniently bear it.

§ 2550. A *tradesman* of my acquaintance, who lives in *Northamptonshire*, had for many months an extraordinary appetite, and was afflicted with frequent looseness, attended with violent *gripping pains*.

He had a variety of advices from different practitioners in physic, and took a variety of medicines; notwithstanding which, after short intervals, his *looseness* and pains returned.

At last he took the mutton fat in the manner mentioned, and immediately found surprizing relief, and in a very short time was cured.

§ 2551. I have likewise ordered the same remedy (§ 2550.) for other patients under this disease, and with the same success. And I apprehend that the boy famed for taking above sixty pounds of aliment daily, might have been cured, and his life preserved, by the same remedy.

§ 2552. IX. The CHOLERA MORBUS I have considered among the acute distempers (§ 2327, &c.)

§ 2553. X. Of the ICTERUS, or the JAUNDICE. This is a disease belonging to the class now under our consideration. It is an effusion of *bile* to the exterior *superficies* of the body, and also by the kidneys with the urines; at which time there is a cessation, more or less, of its natural influx from the liver into the *duodenum*.

§ 2554. The justness of this description will be evident to those that will inspect the *urine* and *stools* such patients, observe the white tunics of their eyes, and the colour of their skin: the urine will be deeply tinged with a yellow colour, the stools appear white (more or less) and the tunics of the eyes and colour of the skin be yellow.

§ 2555. The common cause of this disease is an obstruction in the *liver*, which prevents the *bilious* particles from flowing into the *gall-bladder*; and consequently none can pass through the *ductus choledochus* into the *duodenum*.

§ 2556. The curative indications are, to remove the obstructions of the *liver*, and the morbid quality of the blood which occasioned them.

§ 2557. As to my method of treating patients under this disease, I generally prescribe such remedies as the following:

℞ Balsam. capiv. q. v. capiat gut. xviii. vel xx. vesperi et mane cum pulv. sacchar. alb. mist.

℞ Chalybis cum sulphure pptæ. zi. rad. curcumæ rad. serpentar. virg. ā ā ʒss. conserv. absinth. vulg. ʒiii. syr. croci q. f. m. f. electarium, cujus capiat quantitatem nuc. moschat. horâ undecimâ matutinâ, et quintâ post meridiem, superbibendo haustum pseudo-theæ cum herbâ marrub. alb. pptæ.

℞ Sp. nitr. dulc. q. v. capiat gut. xx. vel xxv. in ʒss. decocti hordei pro potu communi.

I may add that bitters, the sp. vitriol. elixir vitrioli, and the Spaw waters, are frequently proper for icteric patients.

§ 2558. XI. COSTIVENESS is a disease of the bowels, which I have considered already (§ 847, &c.) among the symptoms, as to its causes, curative indications and remedies.

§ 2559. XII. LIENTERIA, the LIENTERY; which is that flux from the bowels in which the *aliments*, not changed, or not digested, are evacuated with pain and flatulent distentions of the bowels, attended with stomach sickness.

§ 2560. The most frequent cause of this disease (in my apprehension) is a defect in the *dissolvent* quality of the digestive humours, together with

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with a *moist* and *cold intemperies* of the *stomach* and *intestines*.

§ 2561. If this distemper continues long, the patient will soon lose his flesh, and find his vital strength abate.

§ 2562. The *curative* indication is, to direct such *alterative* medicines as may free the blood from those morbid humours, which deprave the natural quality of the fluids secreted for the digestion of our aliments; and which may remove all impediments to the secretion by the *liver* and the *pancreas*; and which may prevent or remove any obstructions from the *laeteals*.

§ 2563. And here I may observe, that all those medicines, which are proper to recover a lost appetite and digestion, are suitable in this case.

§ 2564. XIII. The COELIACA PASSIO. This is that flux from the bowels, in which the aliments, in the form of *chyle*, are evacuated by stool.

§ 2565. The productive cause of it is an obstruction, greater or lesser, of the *laeteal* vessels. The cause of this obstruction may be either, 1. *Cicatrices* of the orifices of the *laeteals*, remaining after the *dysentery*: Or, 2dly, Some *tumour* of the *mesentery*: Or, 3dly, A *tumour* of the *pancreas*, or of some other *viscus*: Or, 4thly, and which is the most frequent cause, A *glutinous* humour stuffing the orifices of the *laeteals*.

§ 2566. The *curative* indication is to remove the obstructions. And for this purpose, a gentle *aloetic*, or *saline* purgative, may be proper to cleanse the *primæ viæ*, the *stomach*, and *intestines*. After which we should prescribe *saline alterative* medicines, mixed with *chalybeates*; which may remove the *viscid* quality from the animal fluids, and render the passages, through the *laeteals*, into the blood easy; and at the same time strengthen the solids.

§ 2567.

§ 2567. XIV. The *DIARRHOEA*, or *looseness*. By this I mean that flux of the *body*, in which liquid stools (that is, of humours, excrementitious, serous, and pituitous) are evacuated without pain, or blood, or purulent matter.

§ 2568. The most frequent immediate cause of this flux is a too great quantity of lymphatic humours excreted into the cavity of the intestines.

§ 2569. But the causes of such an *afflux* of lymphatic humours into the intestines may be various, *e. g.* 1. A diminution of the insensible perspiration.

2. An immoderate use of summer fruits.

3. An extraordinary, or augmented quantity of bilious and acrid humours, secreted in the liver, emptied into the *duodenum*, and continually velli-cating the membranes of the intestines, and stimulating them to propel onwards and evacuate their contents.

§ 2570. Be pleased to take notice, that I am *not* now speaking of symptomatical and critical *diarrhoeas*, which happen in *acute* diseases, but of those which occur *sine febre*, and are produced by one or other of the causes mentioned.

§ 2571. The curative indication here leads us, 1. To endeavour to recover the insensible perspiration to its usual and healthful quantity, when the flux is occasioned by a diminution of it.

2. To prescribe such *alterative* medicines as may remove the too great *tenuity* of the animal fluids, and inspissate the blood, when the looseness is the effect of eating too much fruit in the summer.

3. To correct the *acrimony* of the blood, and thereby the acrimony of the bilious secretions; corroborate the animal vessels; increase the cohesion of their component parts, which will lessen their diameters, and consequently the quantity of the humour secreted through them.

§ 2572.

§ 2572. XV. DYSENTERIA, or the DYSENTERY, is another disease of the bowels. This is that flux in which blood and purulent matter, mixed with the *mucus* of the intestines, and other humours, are evacuated with *grievous pains* of the belly.

§ 2573. This disease is for the most part accompanied with a *tenesmus*, and great anxiety.

§ 2574. Sometimes it is epidemical, and in cities and camps many people have it at the same time; when sometimes the stools of the sick are very *fætid*, and so *infectious*, as that the *effluvia* of them produce the same distemper in those that are near.

§ 2575. As to the cause of this disease: it may be produced by any humour that is very sharp, and corrosive; sometimes by a putrid acrid bile, and sometimes by a very *saline acrid lymph* excreted into the intestines; which in the first place incides, and separates the *mucus* from the membranes of the bowels, and then corrodes them, so that the membrane which covers the internal *superficies* of the intestines, is ulcerated in divers places, and thereby a fever brought on.

§ 2576. When the sanguine vessels are corroded through, then the blood flows out; and the quantity of the blood is greater or lesser, as the number of the blood-vessels corroded is more or fewer.

§ 2577. But sometimes the effusion of blood into the cavity of the intestines proceeds from a *dissolution* of the red globules into lesser, and from a laxity of the vessels.

§ 2578. Thus it is when a dissolvent acrimonious quality has some time subsisted in the blood, as in pestilential and other putrid fevers: then the *dysentery* is symptomatical, and had a fever preceding it.

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§ 2579. When a DYSENTERY is *epidemical*, I apprehend that it is produced either, 1. by acrimonious dissolvent particles diffused in the *air*, which enters into the bodies, when the blood is under a previous acrimonious quality, and the vessels are lax: Or,

2. By very dissolvent particles subsisting in the blood of persons who have the *dysentery*, which are of so contagious a nature, that they enter even into the bodies of healthy persons, very near, and produce the same distemper in them.

§ 2580. And we may conclude this (§ 2579. 2.) is the case, when several persons are found to receive this distemper by infection.

§ 2581. And here I may observe, that diseases produced by dissolvent causes are much more infectious than others. Hence it is that the plague is so catching.

§ 2582. The *curative* indication in this disease, is very manifest, *viz.* by proper *alterants* to free the animal fluids from a *dissolvent acrimony*, and to strengthen the animal vessels. For which purposes *rad. tormentillæ*, *rad. serpentariæ*, *cortex eleutheriæ*, *bolus Angl. Gall. et Armen. sal martis. tinct. martis Helvet. balsam. capivi*, &c. are proper.

END OF LECTURE XXI.

LECTURE XXII.

On the CHRONICAL DISEASES of the ABDOMEN, viz.

16. *The Tenesmus.* 17. *The involuntary Discharge of the Stools.* 18. *The insensible Evacuation of the Stools.* 19. *The Hæmorrhoides, or Piles.* 20. *The Diabetes.* 21. *Bloody Urine.* 22. *Purulent Urine.* 23. *Urine with the Appearance of Hairs in it.* 24. *The Ischury, or Suppression of Urine.* 24. *The Strangury.* 26. *The Dysary.* 27. *Involuntary Evacuation of Urine.* 28. *Insensible Evacuation of Urine.* 29. *The Dropsy: and,*
On the Venereal Disease.

On the CHRONICAL DISEASES of the LIMBS, viz.

1. *The Leucophlegmatia, or Oedematous Swellings of the Limbs.* 2. *The Anasarca.* 3. *Rheumatic Pains.* 4. *The Arthritis, or Gout.* 5. *The Sciatica, or Hip Pains.* 6. *The Atrophy.* 7. *Fixed Contraction of the Limbs.*

§ 2583. **H**AVING considered several diseases of the *abdomen* in my last Lecture, I proceed in this, gentlemen, to give you my opinion of the *causes* of some others which have their seat in *that part of the body*, with the method of *curing* them, *viz.*

§ 2584. XVI. **THE TENESMUS.** This is a continual, and very uneasy stimulation to go to stool, and is commonly produced by *acid* humours from the intestines stimulating the sphincter ani, and by a relaxation of the muscular fibres and vessels of that sphincter.

§ 2585.

§ 2585. The curative indications lead us to prescribe those *internal* medicines, which may correct the acrid particles, diffused in the contents of the stomach and bowels, and free the blood from its morbid acrimony.

§ 2586. And *externally*, after fomenting the *anus* with warm water, to wash out the acrid stimulating salts which excite the *tenesmus*, or with a mucilaginous decoction of the radix althææ to obtund them, we should direct such applications as may recover the muscular fibres and vessels of the *sphincter ani* from their laxity, and contract them to their natural lengths.

§ 2587. For this intention, I have often, with great success, directed a rag to be doubled to the compass of a shilling, then wetted *cum spiritu vini rectificato* and applied to the fundament, to be kept there two or three minutes, and then taken away:—This application may be repeated two or three times a day, as the case may require.

§ 2588. In the same manner (§ 2587.) applications may be made *cum spiritu lavendulæ composito*, vel *cum tinctura myrrhæ*. Or the *anus* may be fomented with a strong decoction of rosemary, or sage, or juniper berries, or of the shavings of saffras wood, mixed with a fourth, or a third, or an equal part of brandy made warm.

The applications (§ 2586.) are likewise proper to prevent, or remove the *providentia ani*, and any *relaxation*, or *paralytic* disorder of the part.

§ 2589. XVII. The INVOLUNTARY DISCHARGE OF THE STOOLS, is another disease to be reckoned in the class now under our consideration.

§ 2590. Those stools I call involuntary, which happen while the patient is awake and is sensible of them, from an incapacity of retaining them: which therefore come away against his will.

§ 2591. The cause of this disorder is a great relaxation of the muscular fibres, and vessels of the sphincter ani.

§ 2592. Those applications which have been related under the last head, are proper *external* remedies in this case. But farther, such *internal* medicines should be prescribed, as may recover the strength of the action of the vital organs to the standard of health, may warm and contract the muscular fibres, and restore the natural contractile motion of the animal vessels.

§ 2593. For these purposes, the following *julep* is a suitable remedy, *viz.*

℞ Corallii rubri præparati ℥ii. sal. martis gr. xvi.
aq. cinamom. simpl. ℥vi. aq. cinam. spirit.
℥i. sp. rorismarin. (vel sp. lavendulæ com-
positi) fyr. balsamic. ā ā ℥ss. m. f. JULEPUM,
cujus capiat cochl. ii. bis vel ter in die,
quamdiu fuerit occasio, phialâ prius agitâtâ,
et superbibendo cyathum theæ cum salviâ
nobili pptæ.

§ 2594. XVIII. The INSENSIBLE EVACUATION OF THE STOOLS. This disease, in acute fevers, proceeds from such a delirium, or disorder of the senses, as hinders the patient from perceiving any irritation from the quantity or quality of the *fæces alvine*, and generally terminates in death.

§ 2595. But when insensible stools happen to persons who have no acute distemper, it must result from such a *relaxation* of the muscular fibres of the sphincter ani, and such a paralytic state of it, as is attended with a loss of the sense of feeling. The medicines, both internal and external, which are needful for the cure of the *palsy*, are the proper remedies in this disease.

§ 2596. XIX. HÆMORRHOIDES, or the *piles*. These are tumours about the *anus*, owing to a preternatural enlargement of the veins in that part, from too great a quantity of blood: these sometimes

appear *externally*, at other times are quite *internal*.

§ 2597. The blood in these veins frequently increases in quantity, so as to burst through the inclosing membranes; whence happens a flux of blood, which, if it be not immoderate, is beneficial to *plethoric* bodies, and should not then be stopped. But then it may prove excessive in *some* habits, so as to render it advisable to stop it. The application of a *pledget*, wetted *cum sp. vin. rect.* may be sufficient, if assisted with some of those medicines which are proper against hæmorrhages.

§ 2598. If the tumified *hæmorrhoidal* veins do not break, they become exceeding painful, and are called *hæmorrhoides coecæ*, the blind piles. In this case the following remedies are proper, and often effectual, *viz.*

R Herb. verbasci, m. iv. coq. cum aq. pur. q. s. ad lbii. dein ponatur liquor fervidus in vas idoneum, in lasano, vel scaphio, tum æger calidè quantum ferre poterit, excipiat vapores in partes affectas per horæ quadrantem: et hoc remedio utatur bis in die. *Vel*, in defectu herbæ prioris, f. decoctum cum fol. malvæ m. iv. et fol. absinth. vulg. m. ii. et aquæ q. s. ad lbii; *vel*, cum rad. althææ ʒiii. sem. anisi ʒi. et aquæ q. s. ad lbii. ut prius utendum. *Vel*, cum uno, aut altero horum decoctorum anus bis in die cum stophis laneis tepidè foveatur per horæ quadrantem. Tum, bis in die (si fuerit occasio) horâ unâ post usum decocti applicetur partibus affectis unum, vel alterum remediorum sequentium.

R Ol. olivar. ol. succini ā ā ʒii. m. f. linimentum, quo partes affectæ tepidè inungantur; *vel*,

R Ol.

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R Ol. olivar. ℥ii. ol. fuccini ℥ss. m. f. linimentum ut prius applicandum; *vel,*

R Ol. fuccin. ℥ss. sp. lavendul. comp. gut. xx. m. f. linimentum ad usum eundem; *vel,*

R Ol. fuccin. ℥ss. camphor. pulv. gr. vi. m. f. linimentum ut prius utendum; *vel,*

R Aq. calcis, sp. vin. rect. ā ā ℥i. m. f. fots, quo partes affectæ foveantur; *vel,*

R Sp. vin. rect. ℥iss. sp. lavendul. comp. sp. rorismarin. ā ā ℥ii. m. f. fots, ut prior utendus.

§ 2599. XX. DIABETES. This is a very *profuse evacuation* of a *clammy, sweetish URINE*, as if honey was dissolved in it; attended with an intolerable *thirst*, a quick *pulse*, *faintness*, and great loss of strength; which symptoms increase or diminish, just as the quantity of the urine is more or less. And sometimes not only urine, but the drink taken by the patient, is discharged from the bladder, either not at all, or but little altered.

§ 2600. In order to understand this distemper, it is necessary to observe,

1. That there are *salts* always subsisting in the blood; and that in the time of health the saline particles are diffused in the blood, without cohering with each other.

§ 2601. 2. That in this disease the *saline particles coalesce, unite*, and cohere together, and form corpuscles *too large* to enter and pass through the excretory *tubuli* of the kidnies. Hence it is that the urine of the patient has no *saline* flavour, but a sweet taste. *Or else,*

§ 2602. 3. The particles of *salt* (too abundant in the *serum*) in this disease, probably attract the red globules of the blood more strongly than they attract one another; and thereby divide many of the red globules into less and less; and then, upon uniting

with them, lose their natural saline smell and taste, and contract a sweetness, as the salts of *vinegar*, in making *saccharum saturni*, do upon *their* union and cohesion with particles of ceruss. — And in such a modification the particles of the animal salts, perhaps, pass with the urine, through the excretory *tubuli* of the kidneys to the bladder, and thence *extra corpus*: whence may arise the sweetish taste, and the colour of the urine of persons under the DIABETES.

§ 2603. 4. Observe, that under this disease there is a deficiency in the *dissolvent* quality of the *digestive* humours. Hence it is, that the aliments taken in by the patient are not duly digested, or sufficiently transmuted into the nature of chyle, nor duly mixed with the blood. Hence also it may be, that the drink comes off through the kidneys, sometimes little or nothing changed.

§ 2604. The most frequent procuring causes of this distemper is an *habitual drinking* of strong spirituous liquors; and the more spirituous they are the sooner and the more violently they occasion it.

§ 2605. By a long habit of drinking spirituous liquors, it comes to pass, that the *serum*, or thin part of the blood, is replenished with spirits, or is in part become a sort of spirituous fluid. Farther, it deserves consideration, that *salts* will not dissolve in a spirituous fluid; and that as the usual excretion of the superfluous animal *salts* by the kidneys, in their natural figure, ceases during the subsistence of this distemper, so they become more accumulated in the blood, or their quantity increased; or else, by uniting with globules of blood, they become more bulky.

§ 2606. We have reason to think that these *salts* (§ 2605.) are the cause of those *twitchings* and pains which such patients complain of.

§ 2609. The

§ 2607. The *curative* indications therefore are, to *dissolve* the morbid combinations of the animal salts; which combinations are either among themselves, that is, particles of *salt* with particles of salt, or with comminuted globules of blood.

§ 2608. For this purpose (§ 2607.) the *drinking* plentifully of *aqueous* diluents may be of great service. Thus, river water, and the water of the hot well at *Bristol* are suitable diluents.

§ 2609. I may also mention *lime water* as another proper medicine, because it has been observed that *lime* does strongly attract *urinous* salts.

§ 2610. As proper *alteratives* for changing the morbid quality of the blood in this disease, I advise *acids*, e. g. *sp. vitrioli*, *acetum*, *succ. limonum*, &c. mixed with *diluents*; because they are proper to alter the figure, and dissolve the cohesions of the animal *alkaline salts inter se*, and to dissolve their union with the globules of the blood.

§ 2611. BUT there may be a *profluvium urinae*, an augmented flux of urine, resulting merely from a *laxity* of the *excretory tubuli* of the *kidnies*, which may fitly be called *renum diarrhœa*. This may easily be mistaken for a *diabetes* without tasting and examining the urine.

§ 2612. In the true *diabetes* the urine always tastes sweet; but in the *diarrhœa renum*, the superfluous saline particles come away with the urine in their natural state, and the urine has a saline flavour.

§ 2613. DR. HARRIS, in his book *de morbis acutis infantum*, says, *diarrhœa est quasi diabetes alvi, et diabetes renum quasi diarrhœa*; and relates that he prescribed the following medicines with success for one who had a *diabetes*:

℞ Rhei elect. incif. ʒss. fantal. alb. citrin.
āā ʒi. cardamom. minor. ʒss. m. infundantur
leni igne in vase clauso in vin. canarin. opt.

Ibi. sumpsit ægrotus hujus vini colati cochl. vi. horâ sextâ matutinâ, atque tantundem repetabat horâ decimâ ante meridianâ.

The same dose was repeated three or four mornings, and perfectly cured the patient.

§ 2614. I prescribed this same medicine (§ 2613.) while I lived in the *west country*, for a midwife under the same distemper, and with the like success.

§ 2615. But I apprehend that in Dr. HARRIS's patient (§ 2613.) and also in mine, there was not a *diabetic*, but only a *renum diarrhœa* five *profluvium urinae*.

§ 2616. XXI. The next distemper I shall mention is the URINA CRUENTA, or *voiding blood* with the *urine*.

§ 2617. The bloody urine, which happens as a *chronical* disorder, is produced either,

1. By a *scorbutic* cause. When *scorbutic* salts of a *dissolvent corroding* nature have subsisted in the blood long enough to corrode through some of the minute sanguine vessels in the kidneys, blood comes away with the urine: from the same cause an hæmorrhage sometimes happens at the nostrils. In this case the pulse is generally weak and too quick, and the vital heat less than it ought to be.

2. The friction of some *calculus* in the kidneys makes an opening into some minute sanguine veins. This is the most frequent cause in nephritic patients.

§ 2618. In the former case (§ 2617.) proper *antiscorbutics* must be directed, *e. g.* the succus limonum with water, *vel* sp. vitriol. *vel* sp. nitr. dule, *vel* balsamum restringens nostrum.

§ 2619. In the latter (2617.) the remedies proper in a nephritic paroxysm may fitly be advised.

And

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And the following mixture is a good remedy :

R Balsam. capiv. vitell. ovi solut. ʒi. fyr. de
althæa (vel fyr. balsamic.) ʒvi. ol. olivar.
ʒi. vini mont. ʒiv. et f. mistura, cujus capiat
cochl. ii. vesperi et manè, phialâ prius
agitata.

Or the *balsam. capivi* may sometimes be directed to be taken by drops mixed with sugar.

§ 2620. A poor man complained to me, that blood frequently came from his *penis* : I directed him to take a dose of the *balsam. capivi* night and morning with sugar, and he soon became free from the matter of his complaint.

§ 2621. The infusion of the *hedera terrestris* is likewise a proper and beneficial medicine in this disease.

§ 2622. XXII. MICTUS PURULENTUS, or *purulent urine* ; that is, when *pus*, or matter comes away with the urine. The most frequent cause of this is an ulcer in one or other of the kidneys, or in the bladder.

§ 2623. The remedies and method of cure I shall speak of hereafter, under the article of *ulcers*.

§ 2624. XXIII. The MICTUS PILARIS, which is, when matter, in appearance like threads or hairs, comes off with the urine.

§ 2625. The cause of these appearances (§ 2624.) seems to be a *glutinous humour* excreted from the blood, and inspissated in the ureters by the heat of the body, as it slowly slides down into the bladder.

§ 2626. Those saline alterative medicines, which may remove a viscid and glutinous quality from the blood, and the *terebinthina* or *balsam. capivi* to deterge the vessels, are the proper remedies.

§ 2627. XXIV. The ISCHURIA, or *suppression of urine* ; which I considered among the *acute diseases* (Art. XIV, pag. 159.)

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§ 2628. XXV. STRANGURIA, the *strangury*: which is the making water by drops, commonly with *pain* and *heat* of *urine*, and a continual inclination or painful urging to make water.

§ 2629. The cause is either, 1. A *calculus* in the bladder; or, 2. A loss of the *mucus*, which in time of health covers the membrane, or superficies of the *sphincter* of the bladder, that it may not suffer pain by the salts, or acrimony of the urine.

§ 2630. When the strangury is produced by the friction of a stone in the bladder it cannot be perfectly cured while the stone remains in it in a moveable state, though it may be often relieved and abated by such medicines as are proper for the cure of it.

§ 2631. When it results from the second cause mentioned, the curative indication is to alter or obtund any acrid stimulating particles subsisting in the blood, and discernable from it with the urine, and to advise remedies which may promote the secretion of a mucous matter for the defence of the superficies of the *sphincter* of the bladder, both which intentions I have happily pursued with my patients under this disease.

§ 2632. In *December* 1746, for a gentleman in the seventy-third year of his age, who for several days had been grievously afflicted with the *strangury*, I prescribed the following medicines with great success:

R *Sperm. ceti* gr. xxv. *nuc. moscat.* gr. iii. *camphor. pulv.* gr. ii. *fyr. de althæa* q. f. m. f. *bolus*, *horis quartis*, *vel sextis*, *vel octavis*, p. r. n. *sumendus*, *tepidè superbibendo* *cochl.* iv. *feri lactis cum vin. montan.* ppti.

R *Balsam. tolu.* ʒss. *sp. vin. rect.* ʒii. m. *pro fotu regioni sphincteris vesicæ et ani*, ut opus fuerit applicando,

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R Gum. arabic. ℥ii. sal. prunell. ʒi. dissolv.
in aq. lact. alexiter. ʒi. dein adde aq. nephritic. ʒi. sacchar. alb. q. f. ad gratum saporem: m. f. julepum; cujus capiat cochl. ii. bis terve in die, si postulaverit occasio, contra urinæ ardores.

§ 2633. For another, in the sixty-fifth year of his age, grievously tormented with the *strangury*, I prescribed with equal success the like *bolus* and *foment*, and the following julep:

R Gum. tragacanth. sal. prunell. ā ā ʒi. aq. lact. alexiter. ʒv. aq. nephritic. ʒi. sacchar. alb. q. f. ad saporem gratum: m. f. julepum; cujus capiat cochl. ii. bis terve in die.

§ 2634. Other instances of this disease, with an account of the remedies by which it was cured, may be seen in *Hist.* 33, 34, 35, 36. of my Book on *painful Distemper*.

§ 2635. XXVI. DYSURIA, a *dysury*: which is a painful difficulty in making water, whether the quantity of the urine is more or less.

§ 2636. The causes of this disease are either from stone or gravel, or viscid or acrimonious humours. The consideration of which will direct you what advice should be given to a patient under it, *e. g.*

If it proceeds from viscid, or acrimonious humours, it may be cured by those remedies which are effectual for the cure of the *strangury*.

§ 2637. XXVII. URINÆ INCONTINENTIA, or an *involuntary evacuation of urine*, from an incapacity of retaining it. This is a *chronical* disease of the *sphincter* of the bladder.

§ 2638. The productive cause of this disorder (§ 2637.) is either, 1. A *moist* and *lax intemperies* of the *sphincter*; or, 2. A *paralytic disorder* of the *nerves* of it.

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§ 2639. In young bodies, I apprehend that it results from the first cause mentioned (§ 2638.)

§ 2640. The *curative* indications therefore, in regard to such young patients, are to direct such medicines as may remove the morbid *intemperies*.

And consequently we should lessen the quantity of the *lymphatic* fluid; and for this purpose, the infusion of rhubarb, mentioned under the head of the *diabetes*, (§ 2613.) is an excellent remedy; and so are the *tinct. sacra elixir proprietatis*.

§ 2641. Besides gently purging the body once in three or four days, it will be proper, on the intermediate days, to order some chalybeat medicine, to strengthen the vessels and promote the insensible perspiration. I have prescribed, with success, such a julep as the following :

℞ Aq. alexiter. simpl. ℥iv. tinct. martis Helvetii ℥iss. sp. lavendul. comp. syr. balsamic. ā ā ℥ii. m. f. julepum, cujus capiat cochl. fs. vel cochl. i. vel ii. plus vel minus pro ratione ætatis, bis in die, tepidè superbibendo cyathum theæ cum rad. tormentill. pptæ. vel theæ cum aq. calcis et lign. sassafr. rasuris pptæ. et cum sacchar. albo edulcata.

§ 2642. And the following electuary is proper :

℞ Sal. martis. ℥i.
Cortic. eleuther. ℥iii.
Conserv. cortic. aurant. ℥iss.
Syr. balsamic. (vel. syr. croci) q. f. m. f. electarium, cujus capiat ℥i. vel ℥ii. vel ℥i. vel plus pro ratione ætatis, tepidè superbibendo haustum theæ cum salviâ nobili pptæ.

§ 2643. When this distemper happens to persons far advanced in life, besides a moist and lax intemperies of the sphincter of the bladder, it is often *paralytically* affected: in which case the remedies needful

needful for the cure of the palsy should be advised.

§ 2644. XXVIII. The *INSENSIBLE EVACUATION OF THE URINE*. This proceeds from the same causes, which produce the insensible evacuation of the stools, and requires the same sort of remedies.

§ 2645. XXIX. The *HYDROPS*, or the *dropsy*, is the next distemper to be considered. This is an extravasation and stagnation of a watery humour in some part of the body.

Sometimes it happens in the *membrana adiposa*, which spreads over the *whole* compass of the body, under the *cutis*, between that and the subjacent *muscles*, and is full of *cells*, which receive the *oily* parts of the blood that constitutes the fat in fleshy and fat people. Sometimes a *watery* humour is extravasated, and lodged in some *particular* cavity of the body.

§ 2646. A *DROPSY* is either general or particular :
1. A *general DROPSY* ; which is a soft external tumour of the *whole* body, yielding to the touch; the impression from the finger, remaining a while. Some physicians call this *leucophlegmatia* : and it may also be called an *œdematous* dropsy.

§ 2647. The cause of this kind of dropsy (§ 2646.) is a *viscid glutinous* lymph, excreted into the *membrana adiposa*, and there obstructing the extremities of the vessels, and filling the *adipose* cells.

§ 2648. If no pit or impression remains after pressing the tumified parts with the finger, it is a sign that the excreted humour is more acrid, thin, and watery, and shews that there is *water extra vasa*, water extravasated into those places, where it has a lodgment; and proceeds from a great laxity, or rupture of lymphatic vessels; and may be called *anasarca*, or an *anasarcous* dropsy.

§ 2649. 2. A *particular DROPSY*, is when the extravasated watery humour is lodged in some particular cavity of the body.

§ 2650. When the water is in the head, it is called *hydrocephalus*: when in other cavities it generally has its name from the part into which it is extravasated, as *HYDROPS pectoris*, &c.

§ 2651. It is called *ASCITES*, when the watery humour is collected in the cavity of the *abdomen*, between the *peritonæum* and the *viscera* of the belly, or in the dilated cavities of the glandules, or in the vesicles of the *membrana vesicularis* adhering to the *peritonæum*.

§ 2652. In the *ascites*, the watery humour fluctuates to this side or that, according to the inclination of the body; and hereby is distinguished from the *anasarca*.

§ 2653. There is another kind of *dropsy* called the *HYDROPS tympanites*, which is a fixed, constant, and equable swelling of the belly; hard, and tense, like a drum, and yielding a *sound* upon striking it: by these symptoms it is distinguished from the *ASCITES*.

§ 2654. This (§ 2653.) seems to be produced partly by lymphatic humours extravasated, or a putrified *ichor* generating *AIR*; and is to be cured as the dropsy *ascites*.

§ 2655. The causes productive of all dropsies, or watery swellings, are, 1. A too watery blood, or an excess in the quantity of the lymph. 2. A viscid and acrid lymph. 3. A laxity and weakness of the vessels: from whence arise the *obstructions* and *ruptures* of lymphatic vessels, and effusions of a watery humour into the next adjacent cavities.

§ 2656. The curative indications are these, *viz.*
1. By proper *alterative* medicines to attenuate *viscid* humours, and free the animal fluids from an *acrimonious* quality. 2. To evacuate the water. And, 3. To corroborate the vessels, and mend the blood: that is, to recover it to its natural consistence.

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§ 2657. I prescribed for an elderly gentleman, under hydropical symptoms, the following powders with great success:

℞ Sal nitri ℥ii. sal. genistæ ℥iv. sal. mart.
River. ℥i. apum ficcatarum ℥ii. cubearum
℥i. m. f. pulvis in partes xxi. æquales divi-
dendus, quarum capiat unam vesperi et
mane, cum cochl. i. syr. de erysimo mis-
tam.

§ 2658. I likewise prescribed for a girl, aged fourteen years, who was prodigiously swelled with the dropsy *ascites*, the following medicine, which, with the divine blessing, was effectual to her cure. She lived to be a woman, married, and for aught that I have heard is still living.

℞ Sal nitr. q. v. f. pulvis; cujus capiat ℥i.
vesperi et mane, cum cochl. i. mellis de-
spumat. mistam.

§ 2659. And for a married woman, *Jane Jenkins*, of *Yeovil* in *Somersetshire*, aged about thirty years, (who thought, for near a twelve-month together, that she had been with child, and had bespoke her midwife, &c. who was of the same opinion) I prescribed the following medicines, which were so very successful, that she recovered by them, and afterwards had children.

℞ Sal nitri. ℥ii. sal. fabarum ℥ii. sal. mart.
River. apum ficcatarum ā ā ℥i. coccinell.
℥i. m. f. pulvis in partes novemdecim æqua-
les dividendus; quarum capiat unam bis in
die, cum cochl. i. syrupi de quinque radi-
cibus aperientibus mistam.

I gave her leave to drink a moderate draught of ale, in which *mustard seeds* had been steeped, once or twice a day.

§ 2660. Afterwards I prescribed as follows:

℞ Sal prunell. ℥i. cubear. ℥ii. ol. junip. gut.
vii. m. f. pulvis in partes octo æquales
dividendus,

dividendus, quarum capiat unam vesperi et mane.

R Sp. nitr. dulc. q. v. cujus capiat gut. xxx. in omni haustu potûs.

§ 2661. I prescribed once more for her as follows :

R Sp. nitr. dulc. ℥ss. tinct. croci ℥ii. ol. sulphur. per campan. laud. liquid. Syden. ā ā ℥i. ol. coryophyllor. junip. anis. ā ā gut. xvi. et f. mistura, cujus capiat gut. xxv. in haustu. cerevisiæ bis in die, phialâ prius agitatâ.

These were all the medicines I prescribed for her, never purging her.

§ 2662. I prescribed for a gentlewoman in town, some years ago, who complained of her legs *swelling*, the following drops with success:

R Sp. nitr. dulc. ℥ss. sp. vin. camphorat. tinct. cantharid. ā ā ℥i. et f. mistura; cujus capiat gut. xx. in haustu. liquor. cujuslibet diluent. bis in die.

§ 2663. I do not give *purges* in *dropsies*; but a *vomit* may properly enough be given, after the patient has been some days in the use of suitable *alterative* medicines.

§ 2664. The following is a good medicine :

R Vin. scillitic. ℥vi. aq. cinam. sp. ℥ii. m. f. julepum, cujus capiat cochl. i. bis terve in die, si fuerit occasio.

§ 2665. I would now observe to you one particular, which is indeed a matter of great moment, *viz.* That in the dropsy *ascites*, while the matters are evacuating (whether by a *paracentesis*, or by medicines) the belly of the patient should have a proper bandage on it, that so by a gradual and sufficient straitning of it, the descending trunk of the *aorta* may be kept under a pressure equal to that it bears from the weight of the waters before

before the evacuation. This will prevent the emptying of the vessels of the brain, and those faintings, and even death, which often happen from a neglect of such bandage.

§ 2666. A decoction of the *radix pareiræ bravae*, is a very good medicine against dropsies, as it is both diuretic and stomatic.

And I may add, that immersion in *cold water*, especially in *salt waters* has been of great service.

§ 2667. I shall here, gentlemen, give you my thoughts of the VENEREAL DISEASE, but chiefly that stage of it called the *gonorrhœa virulenta*, a disease common to both sexes.

§ 2668. This is the *flux* of a purulent humour from an *ulcer*, commonly occasioned by an impure *coition*, when one or the other party had the venereal disease before; and is certainly propagated by infection.

§ 2669. If the matter which comes away turns yellowish, or greenish, it is called a virulent *gonorrhœa*.

§ 2670. If the matter only comes away with the urine, then you may conclude that the ulcer is in the bladder, or its *sphincter*.

§ 2671. If it keeps dropping between the times of making water, you may thereby know that the ulcer in men is in the *urethra*, and in women in the *vagina uteri*.

§ 2672. Various are the symptoms, or the effects of venereal infection, according to the virulence of the contagious *effluvia*, and according to the duration of the infectious particles in the blood, after they have been transmitted into it.

§ 2673. What is called a *clap*, and what is called a *confirmed pox*, issue from contagion. Some, indeed, apprehend them to be distempers specifically different. But supposing they are so, yet I
may

may affirm that the *infectious* particles of each of them, when they produce their disease in a body before in health, do introduce a *morbid* quality into the blood: and therefore, that both of them, and all degrees of each sort, are to be cured by *alterative* medicines.

§ 2674. The symptoms of the venereal disease, are some or other, more or fewer, of the following, *viz.* heat of urine, dysuries, chancres, excrescences of divers kinds, *hernia humoralis*, buboes, *caruncule*, nocturnal pains, consumptions, rottenness of the bones, and death the end of all the preceding symptoms and sorrows.

A miserable! a tormenting train of calamities, of *permanent* griefs and pains, for very *momentary* pleasures here! yet all this is but the beginnings of sorrows to the sinners that remain impenitent.

§ 2675. This is a disease, as I have observed, propagated by *infection*; and the *infectious* particles, how minute soever they are, are particles of *solid matter*, and have a certain figure, modification, or texture, though we cannot describe it.

§ 2676. They are particles (§ 2675.) *sui generis*, of one determinate specific kind, though we cannot describe the *modus* by which they come to have their peculiar figure or texture.

§ 2677. When these *venereal* particles are transmitted into an healthy body, and take effect, they always produce a distemper of the same *species*, though in different bodies the disease may be of different degrees. Thus the *infectious variolous* particles, transmitted into different healthy bodies, and taking effect, produce a distemper of the same *species*, *viz.* that we call the *small-pox*; and in the different persons infected, the disease may be in very different degrees, and attended with different symptoms.

§ 2678. The venereal particles are things indeed invisible, yet from their manifest effects, we may learn much of their nature and quality. And from several of the symptoms of the disease, we certainly know, that they are of a very *acrimonious* and *corroding* nature.

§ 2679. This (§ 2678.) we may justly infer from the production of those ulcers from which the humour flows, which we call a *gonorrhœa*, and from the *rottenness* of the bones, in consequence of a long subsistence of this distemper without a cure.

§ 2680. When the venereal *particles* are transmitted into the blood of a person before in health, they, by means of the motion of the circulating blood, become diffused in it, and assimilate parts of it into their own nature, and continue doing so till by proper remedies their nature is altered.

§ 2681. Thus the *venereal* infection introduces a *morbid* QUALITY into the blood, which passes, or is communicated to all the secretions, and is of an *acrimonious* and *corroding* kind.

§ 2682. You may, from what has been observed (§ 2678.) easily apprehend, that the true curative indication is by proper *alterative* medicines, to remove the *venereal* quality that subsists in the blood, and other fluids of your patient: and if you accomplish this point, you will be the happy instrument of curing the distemper, and of removing all the morbid symptoms dependent on it.

§ 2683. Evacuation by *bleeding* is not only needless but improper, if there is no excess.

§ 2684. Evacuation by *purging* is likewise needless, because *alterants* and not *evacuants* are the medicines wanted.

§ 2685. Strong *mercurial* purges may have been of service to some robust bodies, though not as *cathartics*, but by virtue of the *alterative* quality of the *mercurial* ingredients.

§ 2686. But certainly it is the most prudent, and the kindest way of treating a patient, to prescribe for him gentle *alterants*, if such may be effectual for his cure.

§ 2687. SOME have been cured by *salivation*, which is properly an *alterative* course, the spitting produced thereby, being only an effect of the alteration made by the *mercury*, in the *quality* of the animal fluids.

§ 2688. BUT on the account of the fatigues, and many troublesome, and sometimes dangerous symptoms attending a course of salivation, I think it should never be used for the cure of any distemper that can be cured without it.

§ 2689. And to speak freely my opinion, I do not know any disease, produced by, and depending only on a *morbid quality* of the blood, which cannot be cured by suitable *alterants*. SALIVATION, therefore, is a means of curing diseases, which I have never once advised through the course of my practice.

§ 2690. I will now relate a case or two of persons under my care, for the cure of the venereal disease.

HIST. I.

A young gentleman, aged about twenty-three years, afflicted with a *gonorrhœa*, (of many months standing, after he had taken many things from his surgeon ineffectually) desired my advice. I prescribed for him the *balsam. capivi*, and ordered his taking 20 or 25 drops, mixed with sugar, evening and morning, and prescribed an electuary, made with *athiops. mineral. sal prunell.* and I think *elect. lenitiv.* of which I directed his taking a dose twice a day, drinking *sassafras* tea after it. And in the use of this method he obtained a perfect cure.

HIST. II.

§ 2691. A married gentlewoman, aged about twenty-two years, a person of great modesty, had received the venereal infection from her husband. As her case was described to me, she had a *running*, attended with great *heat* of *urine*, and two small tumours *inter labia pudendi*, attended with *heat*, *smarting*, and *pain*.

Oct. 31. 1746. I prescribed for her as follows:

R Balsam. capiv. ʒss. capiat gut. xviii. vel xx. vesperi et mane, cum aliquantillo pulv. sacchar. alb. mist.

R Sal prunell. ʒi. gum. arabic. ʒii. dissolv. in aq. lact. alexiter. ʒiii. dein adde aq. nephrit. syr. de althæa ā ā ʒiss. m. f. julepum, cujus capiat cochl. ii. horâ quintâ post meridiem, et horâ undecimâ matutinâ.

R Sperm. ceti ʒii. ol. olivar. ʒvi. m. f. linimentum tumoribus tepidè applicand. bis terve in die.

§ 2692. Nov. 2. She came to me for further advice, informed me that she was sensibly better, and soon found relief from the medicines, but did not like to take the *balsam*. with the sugar.

§ 2693. I directed her continuing the use of the *julep* and *liniment*, and prescribed the following mixture, to be taken instead of the *balsam. capivi*:

R Balsam. è mechâ vitell. ovi solut. ʒi. syr. balsamic. ʒvi. ol. amygdal. dulc. aq. menth. aq. nephritic. ā ā ʒi. et f. mistura, cujus capiat cochl. ii. vesperi et mane.

§ 2694. Nov. 5. 1746. She came to me again for advice: she was now free from the heat of urine, and in all respects better, but complained of costiveness, which she was always subject to. I therefore prescribed as follows:

R Æthiop. mineral. ʒii. gum. guaiac. ʒi. conserv. lujulæ ʒv. m. f. electarium, cujus capiat

capiat quantitatem nucis moscatæ bis in die.

R Sal prunell. ʒi. aq. menth. vulg. f. ʒiiifs. elect. lenitiv. ʒiii. fyr. de althæâ ʒi. et f. mistura, cujus capiat cochl. ii. vel iii. quando fuerit opus contra alvi adstrictionem.

§ 2695. And I advised her (if she continued mending in the use of these remedies (§ 2694.) to persevere in the taking them, so long as she should have occasion: she did so, and became free from her complaints, and did not need any other medicine.

HIST. III.

§ 2696. For a man aged fifty-three years, who complained that he had a running of yellowish matter for two months, I prescribed, with remarkable success, the *balsam. capivi*, and the following electuary:

R Æthiop. mineral. ʒiiifs. gum. guaiac. ʒfs. elect. lenitiv. ʒii. conserv. lujulæ ʒi. fyr. de althæâ q. f. m. f. electarium, cujus capiat quantitatem nucis moscatæ bis in die.

He took fifty drops of the balsam night and morning.

§ 2697. IV. THE fourth class of *chronical* diseases comprehends those of the LIMBS; the chief of which are these following, viz.

§ 2698. I. THE LEUCOPHLEGMATIA, or an œdematous swelling of the limbs, which is, when the swelling pits, or retains an impression, after pressed with one's finger.

II. THE ANASARCA, when the limbs swell with a more watery humour extravasated, and do not pit. These I have considered, as to their causes, curative indications, and proper remedies, under the head of dropsies.

§ 2699. III. RHEUMATIC PAINS. The cause productive of them, and the parts chiefly affected with them, I considered when I was treating on
rheumatic

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rheumatic fevers (§ 2224.) For curing this disease, those medicines, which may remove a *viscid* and *acrimonious quality* from the blood, are the proper remedies, *e. g.* medicines compounded with *æthiops mineral*, or *cinnabar. nativ.* or *cinnabar. antimon.* with *gum. guaiac. conserv. cochlear.* &c.

§ 2700. This disease (§ 2696.) with a fever, you may find exemplified in *Hist.* 43, 44. of my *Treatise on painful Distempers.*

IV. ARTHRITIS, five MORBUS ARTICULARIS, or *gouty PAINS.* That is, pains in the joints. These are produced, as I understand it, by acrid particles *sui generis*, separated from the blood by minute lymphatic arteries, thro' which they pass into the joint, where the pain is excited: and in *gouty diseases* the blood has a *viscid* quality, and a peculiar kind of *acrimony* of an alkaline nature. I say a *viscid* quality, because without it there could not happen that swelling of the part affected, which so generally attends: and I say, an *acrimony*, because, where there is no swelling, no obstructed circulation of the animal fluid, pain could not be produced without *acrid* particles of one sort or other.

§ 2701. The SCIATICA, or *hip-pains.* This disease proceeds from a *gouty* humour, or quality in the blood, and is to be cured by the same sorts of remedies.

§ 2702. Examples of these three last distempers, I have given in my *Treatise on painful Distempers*, to which I must for brevity sake refer you.

VI. An ATROPHY. By an *atrophy* of the limbs, I mean the consuming, or wasting of the flesh, without a cough, or any other morbid symptoms of the *thorax.*

§ 2703. This disease, in the patients that have come under my care, has been attended with an exceeding lowness of the *spirits*, dejection, and

confusion of the thoughts, almost to the loss of reason; on which account I call it a *nervous consumption*, there being a great deficiency in the quantity of the nervous fluid secreted by the brain.

§ 2704. The productive causes of it, I apprehend, are, 1. A deficiency in the *dissolvent quality* of the digestive humours: and thence an abatement and loss of the appetite; insufficient supplies of aliment or chyle to the blood; a deficiency in the quantity of it, and consequently in the quantity of the *nervous* fluid secreted from it. Whence the lowness of the spirits, &c.

2. A *glutinous quality, sui generis*, in the blood, occasioning obstructions of the vessels, subserving the nutrition of the body.

§ 2705. The *curative* indications here (§ 2704.) are,—to attenuate the animal fluids, remove the obstructions, recover the appetite and digestion, and strengthen the vital organs.

§ 2706. VII. The next disease to be taken notice of is a *fixed* CONTRACTION of any limb, or other particular part of the body.

§ 2707. It may lead us to a right notion of the real stage of the diseased part, if we consider, that every fibre, vessel and membrane, that is dry, rigid, contracted, and immovable by an act of the will, became such for want of particles of fluid in their *interstitia*, to keep them in their natural state of distention, mobility or movableness.

§ 2708. The curative indication, therefore, leads us to prescribe applications, which will procure the filling the *interstitia* of the contracted parts, with such a quantity of proper fluid, as will render them duly distractile and movable.

§ 2709. Several years ago (at Yeovill in Somersetshire) my advice was desired for a poor man's son,

son, one of whose legs had been for some time contracted, and more so than a leg usually is while the body is sitting on a chair: and as he could not extend it himself, so neither could it be extended by any other, without a violence that would have been very hurtful. I prescribed for him outwardly an oily liniment, of which *currier's oil* was a chief ingredient, but it was of no great service: the thoughts of the sad consequence of his living without the use of that limb, very much moved my pity.—While I was considering what might be done for his relief, it came into my mind that the *glovers* of the town brought their *lamb* and *kid* skins (which were dry, stiff, and hard, in a manner like plates of horn) to be soft and supple as gloves, by rubbing them with a liquor made with the *yolks of eggs* mixed with water.

§ 2710. Hereupon I reasoned thus with myself, *viz.* Since this *egg-liquor* is so efficacious in removing *contractions* from dead animal fibres, vessels and membranes (by art rendered dry, stiff, and hard) why may it not be as effectual, when applied to living animal fibres, vessels and membranes, in a state of contractions?

§ 2711. I therefore ordered the contracted parts of this boy's leg to be gently rubbed, two or three times a day, with the *egg-liquor*: and by this means he became free from the contraction, and recovered the perfect use of his legs.

§ 2712. The EGG-LIQUOR, I advise to be made as follows:

℞ Take the *yolk* of a new *laid egg*; let it be beaten with a spoon till it be quite thin, then, by a spoonful at a time, add three spoonfuls of *river-water*; agitating the mixture continually, that the egg and water may be well incorporated.

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§ 2713. I advise a gentle friction of the parts contracted, with the egg-liquor, for eight or ten minutes at a time, thrice a day.

§ 2714. This remedy (§ 2713.) I have since advised in the like cases, and with the like happy success: and some physicians, to whom I related this case, have told me they have had the same success, in such cases where they have advised it.

END OF LECTURE XXII.

LECTURE XXIII.

ON EXTERNAL DISEASES, to which both Sexes are equally subject.

1. The *Opthalmia*, or *Inflammation of the Eyes*.
2. The *Epiphora*, or *Flux of Humours to the Eyes*.
3. *Spots, Specks, and Films on the Eyes*.
4. *Swelling of the Eyelids, and Parts adjacent*.
5. *Bleeding at the Nose*.
6. On *cutaneous Diseases*, viz. The *Itch*,—The *Psoa*,—The *Impetigo*,—The *Herpes Simplex*,—The *Serpigo*,—The *Herpes Miliaris*,—The *Herpes Exedens*,—The *Furfuratio*, or *Scurf*,—The *Lepa*, or *Leprosy*,—The *Effere*, or *small hard Tubercles*, &c.—The *Tinea*, or *Scald-Head*.
7. On *some other Diseases, which*, though not called cutaneous, *appear externally*, viz. *Burns*,—*Chilblains and Kibes*,—The *King's-evil*,—*Scirrhus Tumours*,—*Cancers*,—The *Alopecia*, or *falling-off of the Hair*,—*Sprains*,—*Contusions*, or *Bruises*,—*Ulcers*,—*Mortifications*,—And the *Prolapsus Ani*.

§ 2715. GENTLEMEN, having considered the principal INTERNAL *diseases*, incidental to adult persons of both sexes, I proceed now to discourse on the EXTERNAL, to which both sexes also are equally subject. And the first I shall mention is,

§ 2716. I. The OPHTHALMIA ; which is an *inflammation of the eyes*. Sometimes only the *tunica albuginea* of the eyes is inflamed ; and sometimes the eyelids are so at the same time.

§ 2717.

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§ 2717. This disease is most frequently produced by an alkaline acrimony of the blood, of a dissolvent nature, which in some degree comminutes the red globules of it, and relaxes, in some measure, the lymphatic arteries: whence it happens that some red globules pass from the minute sanguine arteries into those lymphatic vessels of the eyes, where they become apparent.

§ 2718. And therefore, the proper remedies are those internal medicines, which may remove the morbid state of the blood; and those external applications, which may promote the passing of those red particles onwards, in the course of circulation, and contract to their natural state those vessels in which they made the red appearance.

§ 2719. For these purposes (§ 2718.) I prescribe *internals* in the following manner:

R Sal prunell. sal absinth. ā ā ʒii. dissolv. in aq. fluvialis ʒviiss. dein adde succi limon. recenter expressi ʒi. sp. vini tenuioris ʒss. sacchar. albi. q. s. ad saporem gratum. m. f. julepum, cujus capiat cochl. ii. horis tertiis, vel quartis, superbibendo haustum decocti hordei.

§ 2720. As for *external* remedies, I sometimes prescribe the aq. opthalmic. saphirina *alone*, three or four drops of which are to be dropt into the inflamed eye, two or three times a day, the patient afterwards shutting his eyelids, and moving his eye every way, that so the medicine may be diffused over the surface of the eye. If this proves too pungent, and the uneasiness or pains excited by it does not presently cease, I direct its being diluted with as much river water as will render the use of it pretty easy.

§ 2721. I have sometimes prescribed, with great success, one or other of the following remedies, viz.

R Sacchar.

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R Sacchar. saturni ℥i. aq. calcis ℥vii. sp. vini rect. ʒi. m. f. collyrium, ut aq. opthalmica saphirinâ utendum phialâ prius agitatâ; *vel*,

R Lapidis calaminaris ppti. ℥i. aq. calcis ℥vii. sp. vini rect. ʒi. m. f. collyrium ut prius applicandum.

§ 2722. A very remarkable case of an *opthalm*y, is related *Hist.* 15. of my *Book on painful Distempers*, well worth your notice.

§ 2723. II. The EPIPHORA, or flux of humours to the eyes. The cause of this is a laxity of the vessels, and a tenuity, or too great thinness of the lymph.

§ 2724. The proper remedies in this disease, are those medicines which *promote evacuation by urine*, or by *insensible perspiration*, i. e. diminish the quantity of the lymph; and those which may *remove the laxity of the vessels*.

§ 2725. For diminishing the quantity of the lymph, all *diuretics* may be of service; and the following electuary, for strengthening the vessels, and promoting the insensible perspiration.

R Sal martis ʒi. cortic. eleutheriæ ℥vii. syr. croci q. f. m. f. electarium, cujus capiat quantitatem nucis moscatæ bis in die, tepidè superbibendo ʒiv. theæ cum ligni sassifras rasuris pptæ. et cum sacchar. albo edulcatæ.

§ 2726. For external application, the unguentum tutiæ is proper: and so are the collyria directed against the *opthalmia*: and the following, which I have prescribed with extraordinary success.

R Lapid. calaminaris ppti. ℥i. aq. calcis, sp. vini rect. ā ā ʒiii. m. f. collyrium.

HIST. I.

§ 2727. I shall relate to you the case of a patient of mine, a young man aged about twenty years, who of for several years had been afflicted with this distemper.

per. He acquainted me, that, after he had tried many things ineffectually, he used *Sir Hans Sloan's* remedies, both internal and external, for several months, but without success.

I forbid him the drinking any malt liquors, and prescribed for him as follows, *viz.*

R Sp. nitri dulc. ℥i. capiat gut. xx. vel xxv.
in singulis ℥bii. decocti hordei, vel aquæ
puræ cum sacchar. albo edulcatæ pro potu
communi.

R Aq. opthalmic. saphirin. ℥i. cujus aliquan-
tillum bis terve in die partibus affectis ap-
plicetur.

By these means, in about a month's time, he be-
came well.

§ 2728. III. SPOTS, SPECKS, and FILMS on the eyes. Every *spot*, *speck*, and *film*, is produced by particles of matter secreted from the arterial blood, and carried through minute lymphatic arteries to the place where they become apparent.

§ 2729. For removing these disorders, I have generally found the aq. opthalmic. saphirin. an effectual remedy. A grain or two of the *saccharum saturni* blown into the eye, through a quill, is also a good remedy; *vel*,

R Sacchar. saturn. ℥i. aq. calcis, vel aq. flu-
vial. ℥ss. m. f. collyrium.

§ 2730. IV. The SWELLING of the EYELIDS, and parts adjacent. The cause of this is a *viscid* lymph, impelled into the lymphatic vessels, which are too lax.

As for remedies in this case; the acetum et sp. vini rect. separatim et alternatim applied, will generally prove effectual.

§ 2731. V. BLEEDING at the NOSE. This I have, in some measure considered already (§ 604.)

§ 2732. The proper *internal* remedies in this case, are such as are useful in other hæmorrhages.

As

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As for external remedies; the chewing the herb *vinca pervinca*, and then spitting it out, has often been found effectual, according to *Mr. Ray*: and so has the chewing of plantane in like manner: *sp. vin. rect.* may be applied to the nostrils, &c. at the same time. If these means are ineffectual, DOSSILS, armed with astringent powders, and put up the bleeding nostril, should be advised. The *balsamum restringens* is also a proper remedy.

§ 2733. I shall in the next place consider the principal *cutaneous DISEASES*. And as to these, I shall give you a *brief* description of each of them, by which they may be known and distinguished from others, having already given you my thoughts of them *at large*, in a former lecture; observe the general causes productive of them; and then lay before you those remedies, both *internal* and *external*, which I make use of in my way of practice for the cure of them.

§ 2734. I. The first of these distempers which I shall take notice of, and which is indeed the most frequent, is the ITCH (*vid.* § 1315, &c.)

§ 2735. This is an eruption of small pustules, or pimples, which look clear, and are replete with a thin saline and watery humour, and appear red, more or less at their basis: when they break, the places of them are covered with thin scabs. It is called the itch, on account of the violent itching those persons are afflicted with who have it.

§ 2736. The *pustules* of the itch may be produced in most parts of the body; but they chiefly appear on and between the fingers, and on the hands, arms, thighs, hams, and sides of the belly. They are of different sizes, not only in different persons,

persons, but also in the same body; some being larger, and others smaller.

§ 2737. This disease may easily be propagated by *infection*, as multitudes of instances have proved. And when it is communicated this way, I apprehend, that the manner of it is thus, *viz.* the *saline particles*, which are emitted from a diseased person into the body of another, and there produce the distemper, do pass through the *vasa inbalantia* into the blood, and while circulating in it, assimilate parts of it into their own nature and quality; which, when excreted from the blood, and carried with some lymph to the superficies of the body infected, produce pustules of the same sort with those on the body of the person from whom the infection came.

§ 2738. The consideration hereof (§ 2737.) convinces me that the morbid *salts* in the different *cutaneous* diseases are (*sui generis*) of their own peculiar nature, and specifically different in each sort of them from the others.

§ 2739. II. The second cutaneous distemper I shall discourse on is the *PSORA*, or *scab*. This sometimes appears not only in patches on the limbs, but almost over the whole body: and commonly there is a hardness of the skin where the scabs are formed; in which places pustules rise, that sometimes break, and discharge a *sanies*; part of which dries into scabs (*vid.* § 1363, &c.)

§ 2740. This disease is distinguished into two sorts, *viz.* the *moist* and the *dry*; the former of which is more easily cured than the other.

§ 2741. The *psora* may be known and distinguished from the *itch*, 1. By the consistence of the matter contained in the pustules: those of the *itch* are replete only with a thin, clear sort of lymph, but these with a thicker or more spissid humour. 2. In the *itch* the pustules are commonly

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monly more distant; but in *this* disease several of them are close together and unite to the forming a scab. 3. In the *itch* the scabs are thin; but in *this* disease more dense.

§ 2742. III. The IMPETIGO is another cutaneous disease, appearing generally in a circular or oblong form, in some one or two places of the body, or on the hands, or arms, or legs, or thighs, near the groin, spreading in space about an inch, or an inch and an half, more or less (*vid.* § 1371, &c.)

§ 2743. If this disease has been of long continuance, it is seldom cured in a short time, on the account that the specific saline quality of the blood which produces it, and on which it depends, is not easily altered.

§ 2744. IV. THE HERPES SIMPLEX or *tetter*, is a sudden eruption of pustules, arising on the skin singly, sometimes more, sometimes fewer, which look red, and inflamed round their basis. They terminate in a point, and the red colour of their basis softens into a whitish or yellowish appearance on the upper part of the pustules, which commonly are very painful: when these break, and the contained humour is let out, they soon become dry.

§ 2745. This kind of eruption (§ 2744.) generally happens to persons, whose blood is under a hot *intemperies*, and too abundant with alkaline *salts*. And therefore, for the cure of my patients under such a complaint, I generally direct some alterative refrigerating *julep*, and an outward application to remove the uneasy *stimulus* of the humours contained in the pustules (*vid.* § 1372.)

HIST. I.

§ 2746. A young gentleman, about twenty-two years of age, desired my advice for an *herpes*, or *tetter*, on his right shoulder, which was so exceeding sore and painful, as to hinder his sleeping

ing a-nights. I prescribed for him as follows:

℞ Sal absinth. sal prunell. ā ā ℥ii. dissolv. in aq. cinam. simpl. ℥v. dein adde succ. limon. ℥i. aq. cinam. spirituof. ℥ii. sacchar. albi q. f. ad saporem gratum, m. f. julepum, cujus capiat cochl. ii. vesperi et mane, superbibendo haustum decocti hordei.

℞ Camphor. pulv. gr. viii. ol. olivar. ℥vii. ol. tartar. per deliq. ℥i. m. f. linimentum quo partes affectæ vesperi et mane inungantur.

§ 2747. The next day, in the evening, he came to me again, and told me that the *liniment* made the pustules smart at first, but that in a little time they became very easy, and that he slept well the night following. He soon recovered, without *bleeding* or *purging*, or any other remedies than those related.

HIST. II.

§ 2748. For an elderly person, who had tettery pustules frequently arising here and there; besides directing his regimen, I only advised wetting the pustules, two or three times a day, with *sp. vini rect.* which method succeeded to his wishes.

§ 2749. *The same external remedy*, I have used for *myself*, with the same success, taking inwardly, at the same time, some drops of the *spir. nitri dulc.* in warm river water, sweetened with sugar to my palate, for my common drink.

§ 2750. V. The SERPIGO, another sort of *berpes*, is an eruption of reddish pustules, like the last described, but smaller; and produced thick together in the form of a circle, and attended with smarting pain and itching.

These, in English, are called a RINGWORM, or *tetter*, and never suppurate but when they are broken; a lymphatic or watery humour issuing from them.

VI. The

§ 2751. VI. The HERPES MILIARIS. This is a multitude of very minute pustules, in size resembling millet seeds, which are painful or itching, and are very like those in a complex miliary fever: but as no fever attends this eruption, so by the absence of a fever, we know that the disease is the herpes miliaris.

§ 2752. VII. The HERPES EXEDENS is an eruption of *tettary* pustules, which look much inflamed, and are attended with itching (*vid.* 1376, &c.)

This disease happens when some acrid corroding humours are propelled from the subcutaneous sanguine arteries through lymphatic vessels into the cutaneous glandules, where they are in part retained, because many of their particles are too bulky to pass through the pores of the *epidermis*. These corrode the next adjacent parts till they are dislodged and evacuated, and their figure and texture altered.

§ 2753. VIII. The next cutaneous disease is the FURTURATIO, or *scurf*. This most frequently happens on the head among the hair, sometimes on the eyebrows among the hair, and chiefly to children. For a full account of it *vid.* § 1379, &c.

§ 2754. IX. The LEPRA, or *leprosy*, is another cutaneous disease, requiring consideration. This consists of whitish scaly spots or places, with some elevation of the parts affected; which rise somewhat higher than the adjacent parts that remain free from the humour.

§ 2755. The leprous spots are of different sizes and figures. I have seen some round, others oblong, some no broader than a silver penny or two-pence, and some an inch or more in extent. They are produced on various parts of the body, and on the arms, legs and thighs, and on the head (*vid.* § 1385, &c.)

§ 2756. X. There is another cutaneous eruption I may mention, though it does not need the advice of a physician, *viz.* the *ESSERE*, or, as they are frequently in our country called *harvest bumps*, if they happen in the latter end of summer, as they most frequently do (*vid.* § 1391, &c.)

§ 2757. XI. There is one more cutaneous distemper I shall take notice of, vulgarly called with us, the *SCALLED HEAD*; but in the Latin tongue, physicians name it *tinea*.

It is a peculiar sort of *scabbiness*, chiefly affecting the heads of infants and children: and is denominated a scall'd head, from some resemblance it may have to a part that is much scalded with boiling liquor.—For a further description, see § 1394, &c.

§ 2758. This is an ill smelling and loathsome disease. For the cure of it, I have with great success prescribed such a julep as the following, for altering the morbid quality of the blood, *viz.*

R Antimon. diaphoret.

Sal. absinth. albissimi āā gr. iv. vel vi. pulv.
 è chel. cancror. simpl. gr. xii. aq. puræ ʒi.
 aq. alexiter. simpl. ʒvi. fyr. balsamic. ʒii.
 m. f. julepum, cujus capiat ʒi. vel ʒii. bis
 in die, phialâ prius agitâtâ.

This is for infants in their first year of life, whom I also direct to be gently purged with manna once every five or six days.

§ 2759. If the children are three or four years old, I prescribe a julep in larger quantities, and the doses in proportion; and in purging them use sometimes the *fyr. de spinâ cervinâ*, but not to exceed two or three stools, lest I should lessen the insensible perspiration.

§ 2760. I use a little gentle purging with children, because their lymphatic fluid generally exceeds
 in

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in quantity, and not on the account of the saline quality of their blood.

§ 2761. I also advise their drinking saffraſas tea, or river water a little ſweetened, or barley-water, with their meals.

§ 2762. As externals, I direct their heads to be waſhed with a decoction of the *maſh mallows* and wheat bran, made warm, morning and evening, keeping their hair clipped as cloſe as it can be; and that after the uſe of the foment, and wiping the head dry, they put on a cap, made by ſewing ivy leaves together, which is to be changed as often as it ſtinks or grows dry.

§ 2763. Theſe external remedies (§ 2762.) are generally ſufficient. But ſometimes I have alſo preſcribed a liniment made with the *ol. oliv. ol. tartar. per deliq.* with a few grains of camphire.

§ 2764. Theſe (§ 2734. 2739. 2742. 2744. 2750, 2751, 2752, 2753, 2754. 2756, 2757.) are the principal *cutaneous* diſeaſes; of which I have given a juſt deſcription, ſo that each ſort may eaſily be known and diſtinguiſhed from the others.

§ 2765. The cauſes which produce them (§ 2766.) are *ſcorbutic* ſalts of one *ſpecies* or other, too abundant in the blood:—I ſay, ſalts of one *ſpecies* or other, becauſe it appears from the different uniform effects, that occur to our notice in the various cutaneous diſtempers, that they are ſpecifically different from each other, and conſequently that the ſaline particles productive of them are likewise ſpecifically different.

§ 2766. The things therefore indicated as proper remedies, are of two ſorts, viz. 1. Thoſe *internal medicines*, which may free the blood from its *ſaline morbiſic quality*. 2. Thoſe *external alterative applications*, which may *change the figure and texture* of the ſaline particles excreted under the *epidermis*, that ſo, if any of them paſs into the

vasa inbalantia, and return into the blood, they may not be capable of transmuting more parts of it into their primary nature.

§ 2767. This (§ 2766.) is the most rational, and perhaps the most effectual method for eradicating cutaneous diseases. Though, at the same time, if a patient under any of them has too much blood, bleeding him should be advised; or if there is an excess in the quantity of the lymph, evacuants, such as diuretic or purging medicines, should be prescribed.

§ 2768. But if there is no excess in the quantity of any of the animal fluids, bleeding and purging, and any other evacuants, are improper, and will be hurtful to the patient. They may indeed, by forcing a *revulsion* from the exterior superficies of the body, hasten the disappearing of the cutaneous disease, but not to the advantage of the patient's health. For what advantage can it be to have any of the morbid humours, which have been excreted from the blood returned into it? It may occasion the distemper, after a while, to break out again; or produce some morbid effects within the body.

§ 2769. Besides, such needless and improper evacuations will unavoidably bring one of the general causes of diseases into existence, *viz.* a *deficiency in the quantity of the animal fluids*; from from which we have reason to apprehend bad consequences.

§ 2770. The INTERNAL REMEDIES, I commonly prescribe, are such as the following, *viz.*

℞ *Æthiop. mineralis* ʒi. conserv. fruct. cynob. ʒiiss. syr. bacc. sambuc. q. s. m. f. electarium, cujus capiat quantitatem nucis moschatae bis in die, superbibendo haustum decocti hordei, vel ʒiv. theæ cum lign. sassafr. ras pptæ; *vel,*

℞ *Æthiop.*

R Æthiop. mineral. ʒvi. rad. serpentar. Virg. gum. guaiac. ā ā ʒi. conserv. fruct. cynosbat. ʒii. syr. de althæā. q. f. m. f. electarium, ut prius fumendum; *vel*,

R Flor. sulphur. cremor. tartar. ā ā ʒss. theriacæ vulg. q. f. m. f. electarium, cujus capiat quantitatem nuc. moschatæ largissimæ ter in die, superbibendo ʒiv. decocti hordei; *vel*,

R Flor. sulphur. ʒvi. sal prunell. ʒii. mellis ʒiv. m. f. electarium, cujus capiat quantitatem nucis moschatæ ter in die; *vel*,

R Sp. nitr. dulc. capiat gut. xxv. vel xxx. in singulis h̄is. decocti hordei vel aquæ puræ pro potu communi, contra morbos omnes cutaneos.

The spir. vitrioli ten. and the elixir vitrioli are also serviceable in the like cases. And I sometimes advise twenty drops of the *tinctura antimonii* to be taken twice a day.

§ 2771. As for EXTERNAL REMEDIES, the following are proper :

R Camphor. pulv. ʒss. flor. sulphur. ʒi. axungiæ porcinae ʒiiiss. m. f. linimentum, quo partes affectæ semel vel bis in die unguantur.

§ 2772. An ointment of *brimstone* and *lard*, though an old remedy, is a good one, and two such quantities used as that mentioned, will generally cure the itch in most persons very safely; *vel*,

R Flor. sulph. ʒi. zinzib. pulv. ʒss. ol. olivar. q. f. ut f. unguentum molle vesperi et mane applicandum; et interne sumat æger flor. sulph. ʒi. vel ʒii. vesperi et mane in haustu. lactis.

This has been an effectual method to cure the itch.

R Laët. sulphur. Div. unguent. nicotian. ʒvi
 ol. amygdal. amar. ʒii. ol. tartar. per deliq.
 ʒi. ol. rhodii gut. viii. m. f. linimentum.

This I prescribed with great success for a child four years old, that had a thick stubborn scab of long standing on her eyebrows.

§ 2773. But as the *flores sulphuris* in ointments will make the patient distinguishable by a *brimstone-smell*, which is even perceptible in the urine, it oftentimes cannot be prescribed for nice and delicate persons: to such therefore I have often successfully advised the following *fotus* against the itch and many other cutaneous diseases; and the taking at the same time the *tinct. antimon.* as above mentioned (§ 2770.)

R Aq. vitr. camph. ʒvss. aq. hungari. ʒfs. m.
 pro fotu, quo partes affectæ bis terve in die tepidè foveantur.

§ 2774. Here I must observe to you, that I have, in my own practice, advised with remarkable success, the washing *dry* SCABS with *sp. vin. rect.* two or three times a day; and I apprehend that nothing will more effectually, or more speedily and beneficially promote the separation of any *eschars*.

§ 2775. In stubborn cases, and especially against the *leprosy*, I have prescribed the following *liniment* and *electuary*. And I have not yet met with a case wherein it has failed, if duly prepared, and suitable internal medicines were rightly taken for a sufficient time,

R Camphor. pulv. ʒfs. vel ʒi. unguenti citrini
 (in *pharmacop. Edinburg.* præscripti) ʒii. m.
 f. linimentum, quo partes affectæ bis in die inungantur.

(But N. B. I always direct that the parts affected be well washed with a thin mucilaginous decoction of the *radix althææ* and bran, pretty warm, before the *ointment* is applied, and order the
 ointment

ointment to be gently rubbed warm on the parts affected.)

R Æthiop. mineral. conserv. fruct. cynosbat.
 ā ā ʒi. gum. guaiac. ʒi. fyr. bacc. sambuc.
 q. f. m. f. electarium, cujus capiat quantita-
 tatem nucis moschatae bis in die superbiben-
 do ʒiv. theæ cum aq. calc. et lign. fassa-
 fras ras. pptæ.

§ 2776. I proceed now to give you my opinion of the *causes* and *cure* of some diseases, which though not usually called *cutaneous* appear externally.

I. Of the HYDROA. These are small watery pustules manifest to the eye. They sometimes happen in acute diseases, particularly in the *miliary* fever: but sometimes they are a *chronical* cutaneous distemper, which happens mostly to young persons in the summer season, and when they have used much exercise.

§ 2777. These pustules commonly appear on the *neck, shoulders, breast, arms, and thighs*, but most frequently on the private parts, near the *anus*, and on the *glans penis*.

As for proper remedies for them, the wetting them *cum sp. vin. rect.* twice or thrice a day, commonly cures them.

§ 2778. II. BURNS and SCALDS. I need not describe these: it will suffice to mention a few useful remedies, *viz.*

R Ceparum ʒii. contundantur ad mollitiem maximam: pars sufficiens affectæ parti tepidè applicetur; et sextis horis renovetur applicatio quamdiu opus fuerit; *vel,*

R Saponis mollis, mellis, ol. olivar. ā ā ʒiv. optimè misceantur et f. linimentum tepidè applicandum ut prius.

This cures burns without leaving any *scars*: it is to be applied with a feather warm. This medicine will keep good several years. And therefore a sufficient quantity of it should be made at once to be always ready against any sudden occasions for it.

§ 2779. III. The *PERNIO*, that is a *kibe* or *chilblain*. This is a tumour of a reddish colour, more or less deep; sometimes *itching*, sometimes painful. It arises on the hands and fingers, or the toes or heels, both in adult persons and children; but chiefly in children, and in the winter season.

§ 2780. This tumour sometimes terminates in *chaps* or *cracks*, somewhat similar to what happens in the earth in a dry and hot summer. Sometimes it ulcerates, &c. It generally proceeds from a *spissid* blood, with a deficiency in the vital heat, and in the strength of the vital organs.

§ 2781. Proper *internal* remedies may be such as the following:

R Sal. nitr. fal. mart. ā ā ℥ii. dissolv. in aq. puleg. simpl. ℥vi. dein adde aq. puleg. spirituos. ℥ii. tinct. serpentar. sp. nitr. dulc. ā ā ℥i. sachar. alb. q. f. ad saporem gratum m. f. *JULEPUM*, cujus capiat cochl. fs. vel cochl. i. vel cochl. ii. pro ratione ætatis, bis in die; *vel*,

R Æthiop. mineral. ℥fs. gum. guaiac. ℥i. fal. nitr. fal. mart. ā ā ℥fs. conserv. cochlear. hortens ℥i. syr. bacc. sambuc. q. f. m. f. electarium, cujus capiat ℥fs. vel ℥ii. vel ℥i. pro ratione ætatis bis in die.

§ 2782. The following *external* remedies are such as I have found very effectual, *viz.*

Ol. succini,

Acetum,

Sp. vin. rect. And sometimes I have advised a gentle rubbing the parts affected with the *ol. succini*,

succini; sometimes the friction of them with the vinegar, and sp. of wine, alternately at distant times, and twice or thrice a day with each.

§ 2783. IV. The SCROPHULA sive STRUMA, that is, the tumours called the *king's-evil*. These are swellings of the glands of the neck or ears, or under the jaws, which arise from a *viscid matter*, secreted from the blood, and carried by lymphatic arteries into the little cavities of the *glands*, where the more spissid part of it remains adhering to the sides of their cavities, and only the thinnest or most subtile parts of the matter passes on in the common course of circulation.

§ 2784. The *curative* indication here (§ 2784.) is to alter the morbid quality of the blood, and (if the tumours are recent) to endeavour to attenuate (by proper external applications) the matter that is stagnated in the tumour.

§ 2785. The following particulars are proper ingredients for compounding suitable alterative medicines, in the form of *powders*, or *electuaries*, or *juleps*; the doses of which may be washed down with a draught of some decoction of the woods, or of a tea made *cum herbâ paronchiâ foliis rutaceis distillâ*; which tea I often advised to be taken as their common drink, a little sweetened with sugar.

Cinnabar nativum.

Æthiops mineralis.

Millepedes.

Rad. curcumæ.

Aq. calcis.

Sal nitrum.

— prunellæ,—martis, &c.

§ 2786. As for *external* remedies; washing the tumour with *urine* warm, for near a quarter of an hour, twice a day, has in my experience been of great service,

§ 2787. A solution of *sopo* and *nitre* in river water, or in *lime-water*, or in a mucilaginous decoction of the *radix althææ*, makes a proper form. As does a solution of *gum. ammoniac.* in *aq. fœnic. dulc.* mixed with an equal part of vinegar.

§ 2788. The great usefulness of the buds and leaves of the alder tree, in scrophulous cases, deserves our notice.

HIST. I.

For a person afflicted with scrophulous ulcers of a long continuance, I advised a cataplasim made with alder buds: and after they were over, then with the leaves of alder to be applied twice a day to the ulcers, and that she should drink a quarter of a pint of the milk in which the alder leaves had been boiled (sweetened with sugar or not, as her stomach would take it) as often in a day. And in this method the ulcers healed, and she became well.

HIST. II.

I likewise advised the same method for a man, upwards of forty years of age, who had ulcers a long time, and used a variety of remedies ineffectually; and although his ulcers were not of the scrophulous kind, yet he found the same benefit, and became well.

But there is no remedy infallible.

§ 2789. V. The SCIRRHUS. This is a hard, painless tumour arising in some gland, in manner similar to the production of a scrophulous swelling, and little different from it.

§ 2790. VI. The CANCER, five CARCINOMA; which is a hard round tumour, beginning in some glandule, in a manner like the two former tumours, but often attended with *pain*.

§ 2791. Every tumour, in its first beginning, is in bulk much less than a grain of sand, and gradually increases in bulk, by the accession of simi-

lar constituent parts excreted from the *arterial* blood, as it flows along to the veins.

§ 2792. A *CANCER* differs from a *SCIRRHUS* in this particular, *viz.* that it is often attended with much pain, from which the *scirrhus* is free.

§ 2793. In progress of time, veins, turgid with blood, appear running to this tumour, and somewhat resembling the claws of a *crab*, on which account it is called a cancer.

§ 2794. The blood of persons afflicted with this disease abounds with much *acid*, *pungent* particles, which occasion the pains attending this sort of swelling. The great thing therefore to be attended to, for the benefit of persons afflicted with cancers, is to rectify the morbid state of their blood; free it from its *alkaline acrimony*; attenuate, or prevent the rise of any viscid, or glutinous humour, and recover the animal fluids to their natural balsamic quality.

§ 2795. For these purposes (§ 2795.) electuaries compounded with *æthiop. mineral.* or *cinnabar. nativ.* with the *gum. guaiac. conserv. cochlear. hortens. vel conserv. lujulæ*, vel *fruct. cynosbat.* and *syr. bacc. sambuc.* are proper. These should be so compounded that a dose (q. n. m.) may be taken once a day (*viz.* about eleven o'clock in the forenoon) drinking after it a cupful of some proper diluent. A dose of the *balsam. capiv.* with sugar, should be taken evening or morning, or both. And thirty drops of the *sp. nitri dulc.* in half a pint of the common drink twice a day; or a few drops of the *sp. vitrioli*, just to acidulate the drink.

§ 2796. I need only to add on this subject, that those medicines which are proper for persons who have the *scrophula*, are generally suitable remedies for such as have a cancer; only remembering that in cases of this tumour (when it has long subsisted) there is a much greater acrimony in the blood, especially

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especially if the tumour is broke, and we should prescribe accordingly.

§ 2797. We should not make application to the tumour, except it become painful and inflamed, or putrify and break.

§ 2798. VII. THE ALOPECIA, or *falling off of the hair*, is another disease to be considered. This sometimes happens to human bodies of all ages, *old and young*.

§ 2799. I call it a *disease*, because it is the effect of *morbific* causes: the hair falls off when there is not sufficient nutriment to maintain it, and when the membranes and vessels are so lax, as not to be able to retain them.

§ 2800. For when the persons are in good health, and their hairs stand firm in their sockets (if I may so express it) the hair is not easily pulled off; as every hair adheres strongly to the parts subjacent to its root, and to the membranes through which it passes.

§ 2801. The *lues venerea* and the *phthisis*, and many other diseases bring on the *alopecia*.

§ 2802. The curative indication is, to alter and remove the morbid habit of body, and those qualities of the blood, which hinder chylyfication and a due distribution of nutriment, and then to strengthen the vessels.

. HIST. I.

§ 2803. I was consulted for a young lady (in the seventh year of her age) of an obstructed habit of body and subject to fevers, whose *hair* had for several months kept falling off from her head, so much that she had very little left.

July 2. 1746. I prescribed for her the following *julep* to remove the *viscid* quality of her blood, and the obstructions resulting from it; and to strengthen the vital organs, but thought nothing of the *alopecia*.

R Sal

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R Sal. prunell. ℥i. fal. martis gr. xv. tartar. vitriolat. gr. v. aq. lact. alexiter ℥ii. aq. nephritic. ℥ss. syr. de quinque rad. aperientibus ℥iiss. m. f. JULEPUM, cujus capiat cochl. i. vesperi et mane.

This was repeated July 5. and July 14.

July 21. I prescribed as follows :

R Sal. prunell. fal. martis ā ā ℥i. tartar. vitriol. gr. viii. aq. lact. alexiter. ℥iiss. aq. nephritic. ℥ss. syr. balsamic. ℥i. m. f. JULEPUM, cujus capiat cochl. i. vesperi et mane.

These medicines, through the divine blessing, were effectual, not only to the purposes I proposed; not only to correct the morbid quality of her blood, and to remove the obstructions consequent to it, and to free her from a propensity to fevers; but also to the cure of the *alopecia*.

§ 2804. From this divers useful inferences may be deduced, *e. g.*

Inf. 1. That *chalybeates* are very efficacious remedies to promote a free circulation of the animal fluids, and a distribution of nutriment; likewise to invigorate the action of the vital organs and strengthen all the muscular fibres, vessels and membranes of the body, even to their extremities.

Inf. 2. That *chalybeate* and *nitrous* SALTS, mixed in just proportions, make useful remedies against *nervous* diseases.

Inf. 3. That *chalybeate* salts, mixed with *nitrous* and *acid* salts, may make effectual remedies for curing the *alopecia*, or *falling off of the hair*; as is manifest from the two cases mentioned.

Inf. 4. That *chalybeate* and *nitrous* salts, mixed in due proportion, are proper medicines for curing those *chronical* diseases which are attended with the *falling off of the hair*.

§ 2805. And it may be observed, that these medicines (§ 2805.) as they attenuate the blood, and cleanse and strengthen all the secreting glands, so they promote a more copious secretion of the *nervous* fluid.

§ 2806. VIII. Of a STRAIN OR SPRAIN. This is owing to such a violent extension (by some accident) of the tendons and vessels of the muscles strained, that they cannot contract themselves to their natural lengths; and the great elongation of the vessels in consequence of it, deprives them a while of their contractile power, and lessens the diameter of their cavities, and thereby obstructs the free course of their fluids through them, and occasions them to swell, and the parts affected to become painful and incapable of their usual service and voluntary motion.

§ 2807. These are the effects of great sprains; and therefore, for the cure of patients in such cases, endeavours must be used to contract the overstretched vessels to their natural lengths, to recover to them their contractile power, and regain a free circulation of their fluids through them.

§ 2808. For these purposes (§ 2807.) I advise *vinegar*, *rectified spirits* of wine, friction, and motion, separately used in the following manner, *e. g.*

Suppose the ankle to be sprained, 1. Let the parts strained be fomented with vinegar, which will thin the fluids, and thereby render their circulation more easy, and either prevent a swelling, or promote its subsiding. This application is to be repeated for five or six minutes at a time, every four hours in the day.

2. Let the patient stand three or four minutes at a time, now and then, on both his feet in their natural posture, sometimes moving the strained foot: when sitting with his feet on a low stool, let

let him sometimes move it different ways, as he can bear it. The doing this will contribute much to the contracting the overstretched parts, and to the recovering a due circulation of the fluids through their vessels.

3. Let gentle dry *friction*, with a warm hand, be sometimes used to the parts affected, which will conduce much to the same ends.

4. Two hours after every application of the *vinegar*, let the parts affected be just wetted with the strongest rectified spirits of wine, and then gently rubbed.

§ 2809. By these means, the persons to whom I have advised them, have recovered from the effects of most violent sprains, in fewer days than others have been week, in recovering by different ways of management, *i. e.* by resting the strained foot, and disuse of its motions.

§ 2810. IX. CONTUSIONS OR BRUISES. All parts the body are liable to them by a great variety of incidents.

§ 2811. As to the cure; taking away blood is of a trifling remedy in this case, if the person is not *plethoric*.

If the parts bruised are *external*, the same applications are proper as in cases of *strains*, in order to recover an easy circulation of the fluids through the vessels bruised.

If any *internal* part is hurt, or if the *contusion* is great, *internal* medicines are needful.

§ 2812. The curative indication, is to maintain the natural *tenuity* of the animal fluids, dissolve *viscid cohesions*, and remove obstructions.

§ 2813. For these intentions (§ 2812.) when I have patients ill with *contusions*, I prescribe for them such medicines as these following:

℞ Sal. prunellæ, sal. absinth. ā ā ℥ii. dissolv.
in aq. alexiter. simpl. ℥vss. dein adde succ.
limon.

limon. ʒi . aq. nuc. moscat. ʒiss . sacchar. alb. q. s. ad saporem gratissimum m. f. JULEPUM, cujus capiat cochl. iv. horâ undecimâ matutinâ, et quintâ post meridiem, superbibendo haustum decocti hordei.

R Balsam. capiv. ʒi . ol. olivar. ʒi . dissolv. cum vitello ovi recentis uno, dein adde syr. balsamic. (vel syr. de althæâ) ʒi . vin. mont. ʒiv . et f. MISTURA, cujus capiat cochl. ii. vesperi et mane.

These kinds of medicines I have always found effectual.

§ 2814. *Sperm. ceti per se*, vel cum nitro mistum, is also a proper remedy: and *spruce beer* and *mum* are suitable *restoratives* for persons who have been much bruised, after the *obstructions* consequent to the *contusion* have been removed, &c.

§ 2815. X. OF ULCERS. An *ulcer* is a *solution*, or *separation* of some parts of the *solids* or animal vessels, which ought to remain united.

§ 2816. It is such a separation or disunion of the component parts of the solids, as is produced by an *internal morbid cause*, or by the admission *ab extra* of acrid corroding particles, which occasion *tubercles* and ulcerations in the *cutis*, as in the *itch*.

I say a disunion of some parts of the solids by a *morbid cause*, to distinguish this disease from a *wound*: For in every wound, there is a disunion of many parts of the solids, whether the wound be made by *gunshot* or *sword*, or any other instrument. Though indeed, if a wound does not heal, but the parts separated remain disunited, and discharge a thin *ichor*, or a *purulent* matter, the wound is then become an *ulcer*.

§ 2817. All tumours when they break, become *ulcers*.

§ 2818. The most frequent internal causes of ulcers are, 1. *Viscid* humours, or a *viscid* quality in the animal fluids, which occasions obstructions, and thence *tumours* in some *glandules* or *lymphatic* arteries, which terminate in a rupture of them, *i. e.* in an ulcer.

2. An *acrimonious* quality of the blood; the *corroding* particles eating through the coats of the *lymphatic* vessels in the parts affected, *i. e.* producing ulcers there.

§ 2819. The vessels in which the *disunion* of parts happen are, the *lymphatic vessels*, the *nervous tubuli*, and the *tubuli* which *carry nutriment*.

§ 2820. The sanguine vessels are not corroded through, or very seldom so in ulcers; for if they were, an *hæmorrhage* would be the consequence.

§ 2821. We may, from what has been observed concerning the productive causes of *ulcers*, easily apprehend that the use of proper internal medicines is necessary for the cure of them: and that the curative indications oblige us to prescribe those *alterative* medicines, which may remove the *morbid* quality which was the cause of the *ulcer*.

§ 2822. Therefore, when we shall be called to advise for a patient under this disease, we must so critically examine him as to find out the nature of the *morbid quality* which subsists in his blood.

§ 2823. And indeed there is but little probability of curing the patient, without finding out the cause that produced his ulcer, on which the continuance of it depends. Suitable *alteratives* are the proper remedies.

Internal *alterative* medicines may be compounded of *cinnab. nativ. athiop. mineral. gum. guaiac. &c.* Decoctions of the *woods* in *lime-water*, &c. are suitable; so are the *balsam. è mecha*, *balsam. capiv. terebinthina & chio*; the *radix symphyti*; *herb. agrimonia, hedera terrestris, sanicula*, &c. the *aqua*

benedicta composita, tinctura cantharidum, balsam. Locatelli, ol. terebinth. &c.

All those medicines are proper which may remove the morbid quality of the blood that produced the *ulcers*, whether they are only external or internal.

§ 2824. We may know pretty nearly the seat of internal *ulcers*, by observing which way the matter of the *ulcer* is evacuated. Thus, if *purulent* matter is discharged by spitting we may conclude the *ulcers* is in the lungs: if it comes away with the *urine* we know thereby that it is situated either in the kidneys or bladder: if it comes away before the times of making water we may thence infer (if the patient be a man) that the *ulcer* is seated in the *urethra*; or if it be a woman, that the *ulcer* is either in *utero* or *vagina uteri*: and that, if the matter is discharged *per anum*, the *ulcer* is in the stomach, or some part of the intestines, or in the *sphincter ani*.

§ 2825. As for external ulcers; besides internal medicines, outward remedies must be also applied.

§ 2826. SURGEONS have reckoned *four* things needful to be done for the cure of external ulcers, *viz.* 1. To deterge; 2. To digest; 3. To incarn; and 4. To cicatrize, or skin them over.

§ 2827. 1. To *deterge*; that is, to dislodge any *sordid tenacious* particles of matter that remain in the *interstices* of the *ulcer*. For this purpose some have used the *unguentum apostolorum, basilicon* with *præcipitat. ruber*, or *terebinthina veneta rad. iridis, rad. aristoloch. rotund. &c.*

§ 2828. 2. To *digest*; that is, to bring the *ulcer* to discharge a good matter, and they reckon an *ulcer* well digested, when the matter is *thick, white, and sweet*, and decreases in quantity. For this intention, the *unguent. basilicon nigrum vel flavum*, mixed with *mercurius præcipitatus ruber*, are proper.

§ 2829.

§ 2829. 3. To *incarn*; that is, to promote the increase of flesh in the cavity of the ulcer, if it be deep. For this purpose, the *linimentum Arcaei*, *gum. elemi*, &c. are used. And if the flesh grow loose and spongy, it should be touched with *vitriol*, or *alum* stone, which daily wastes it with little or no pain, and fits it to heal or skin over.

§ 2830. 4. To *cicatrize*, skin over the ulcer. For this purpose have been used the *unguentum desiccativum rubrum*, *unguentum tutiae*, *aq. calcis*, &c. so have *pledgets* of lint per se, or after it has been dipt in a solution of *Roman vitriol*, and dried.

§ 2831. In *cicatrizing* an ulcer, care must be taken to do it so, that the part healed may neither appear *too high* nor *too low*.

§ 2832. XI. MORTIFICATIONS. A *mortification* in any part of the human body is the cessation of motion and heat in it: and when it is come into this state, it is really dead [and soon irrecoverable to life again].

§ 2833. Some have distinguished mortifications into a *gangrene* and a *sphacelus*: the former they describe as an *incipient*, and the latter a *perfect* mortification.

§ 2834. For my part I cannot see any reason or use of such a distinction. A mortification may begin (suppose) in the extremity of the toe, and the parts first mortified may not extend a quarter of an inch, and yet this mortification may run gradually through the foot, up the leg and thigh, and into the body, so as in a short time to put a period to life; which was the case of a man to whom I was called, after the mortification had ascended to his body, and the progress of it was discoverable by a progressive sensation of numbness in the parts which became mortified.

§ 2835. Mortifications are distinguishable into greater or lesser; into fixed or terminated, or increasing.

§ 2836. While there is motion and heat in any part of the body, there is no mortification; and when there are neither, then is a perfect one, or the part is quite dead.

§ 2837. The cause of a mortification is first an *obstruction*, and then a stagnation in some capillary sanguine vessels; most frequently happening in the minute sanguine arteries, whence a cessation of motion and heat. But a stagnation, merely in the *lymphatic* vessels, hardly can produce a mortification.

§ 2838. The internal cause productive of the obstruction generally is a *viscid*ity of the blood, or *viscid humours*, with a deficiency of force in the action of the vital organs.

§ 2839. The curative indications are, to attenuate the blood, to remove its viscid quality, and to increase the *vis vitæ*, or strength of the motions of the vital organs, and to separate the dead parts from the living.

§ 2840. The proper *internal remedies*, are the *cortex peruvianus*, and medicines compounded with *nitrous* and *chalybeate salts*.

§ 2841. The proper *external remedies* are, FOMENTATIONS with *docotions* of the *fol. absinth. centaur. minor. rad. curcumæ*, &c. with *lixivial salts*, *sal ammoniac. ol. terebinth.* hot, *terebinth. è chio. cum vitell. ovi solut. acetum, sp. vini. rect.* used *separatim* vel *alternatim*, p. r. n. Incisions on the part mortified are sometimes required.

§ 2842. XII. PROLAPSUS ANI, or *falling out of the rectum*. This results from a *moist intemperies* of the *sphincter ani*, and *membranes* of the *rectum intestinum*.

§ 2843. It may be cured by those *internal* medicines, which are proper against a general laxity of the vessels.

And those *external* applications, which may free the parts affected from their too great humidity, and recover them to their natural tensesness; such as a fomentation (to the *anus*) with a decoction of *rosemary*, *sage*, or *juniper berries*, made with *spring water*, or of the woods *guaiacum* and *sassafras* in *lime water*. Wetting the parts with *rectified spirits of wine* (*per se*) has in my practice frequently accomplished a cure.

END OF LECTURE XXIII.

LECTURE XXIV.

On the Diseases to which INFANTS and CHILDREN are chiefly subject, viz.

1. *Costiveness.* 2. *Aphthæ, or the Thrush.* 3. *The Gripes.* 4. *Diarrhæas.* 5. *Excoriations.* 6. *Costiveness.* 7. *Vomitings.* 8. *Surfeits.* 9. *Coughs.* 10. *The Hooping-cough.* 11. *The Phthisis, or Consumption.* 12. *Worms.* 13. *The Rickets.* 14. *Convulsions.* 15. *The Epilepsy.* 16. *Chorea Sancti Viti.* 17. *The Hydrocephalus.* 18. *Alopecia.* 19. *Perniones, Kibes, or Chilblains.* 20. *Incontinence of Urine.* 21. *Fevers.* 22. *Cutaneous Diseases.*

On the Diseases peculiar to FEMALES.

- I. Before Marriage, viz. 1. *Chlorosis, or Green-sickness.* 2. *Want of the Menses.* 3. *Suppression of the Menses.* 4. *Hysteric Affections.* 5. *The immoderate Flux of the Menses.* 6. *Fluor albus.*
- II. During their Pregnancy, viz. 1. *Vomitings.* 2. *Coughs.* 3. *Swellings of the Legs.* 4. *Looseness.* 5. *Abortion.*
- III. In Childbed, viz. 1. *Floodings.* 2. *After-pains.* 3. *Lochia deficient.* 4. *Lochia immoderate.* 5. *Prolapsus uteri.* 6. *Milk-fevers.* 7. *Looseness.* 8. *Phrenzy.* 9. *Fevers, Small-pox, &c.*

Directions for EXAMINING the Patient.

Rules about PRESCRIBING.

The CONCLUSION.

§ 2844. II. **T**HE next class of distempers, I propose to treat of, comprehends those to which INFANTS and CHILDREN are chiefly subject; which are various.

§ 2845.

§ 2845. I. The first of these I shall mention is, the TOO LONG RETENTION of the MECONIUM or FOECES ALVINÆ after their birth, i. e. *costiveness*. The cause of which, in a new-born infant is, (as I apprehend) a *dry intemperies* of the bowels.

§ 2846. For remedies, I first advise that a *glyster*, made with three spoonfuls of *water-gruel* strained, mixed with *ʒi.* of *sugar*, and *ol. olivar.* *ʒii.* be thrown up; and afterwards a tea-spoonful of the following mixture, given once in two or three hours, till it has a stool; and one pap spoonful of *water-gruel* strained and sweetened, an hour after each dose of the oily mixture. The mother's milk will then be sufficient for the child.

R *Ol. olivar.* *ʒiii.* *sacchar. alb.* *ʒi.* *et f. mistura.*

§ 2847. II. Another disease of infants are the APHTHÆ, or *small white ulcers in the mouths*, commonly called the *thrush*.

The cause of these is an *acrimony* in their blood. The *internal* remedies therefore should be such *alterative* medicines, as may free their blood from its *acrimonious* quality, e. g.

R *Pulv. è chel. cancror. simpl. gr. xvi.* *antimon. diaphoret. gr. iv.* *aq. fluvial.* *ʒiss.* *aq. alexiter. simpl. (vel aq. menth. simpl. vel aq. cinam. simpl.) ʒiii.* *fyr. balsamic. (vel fyr. de althæâ) ʒi. et f. mistura; cujus ʒi. horis tertiis, vel quartis, vel sextis, exhibeatur, phialâ prius agitatâ; vel,*

R *Pulv. è chel. cancror. simpl. gr. xii.* *cretæ alb. sal. absinth. albiss. ā ā gr. iv.* *aq. fluvial.* *ʒiss.* *aq. puleg. simpl. ʒiii.* *fyr. simpl. ʒi. et f. mistura, ut prior exhibenda.*

And, at the same time, the *ulcers* should be wetted twice or thrice a day with the following mixture:

R Gum. arabic. ʒi. dissolv. in aq. menth. vulg. simpl. ʒi. dein adde aq. calcis ʒvi. syr. balsamic. ʒii. m. f. LOTIO pro aphthis.

§ 2848. III. The GRIPES are another disease pretty frequent among children.

§ 2849. We may know when an infant has this disease by inspecting his stools, and by his continually crying. For, at such times, the stools are either greenish, or very thin, or mixed with white grains, or coagulations like white minute pieces of coral, or they are frothy: the child's cry discovers it to be uneasy, that is, more or less under pain.

§ 2850. The causes of it are *acrid* humours, or *flatulencies* in the contents of the stomach, and bowels.

§ 2851. The remedies are the same *alterative medicines* as are given in the APHTHÆ; after the use of which, for a day or two, it will be properly to purge the little patient with a solution of *manna*, or with a few grains of *rhubarb* (from gr. iii. to vii. or viii, or more, according to the age and bulk of the child): always taking care rather to underdose the purging medicine, than to order a dose *too strong*.

§ 2852. IV. DIARRHOEAS, OR LOOSENESSES, are also frequent distempers among infants. This disease frequently follows griping pains, and depends on acrid humours of a dissolyent nature; and is to be cured by such *alterative* medicines, as have been mentioned (§ 2847.)

§ 2853. V. Another sort of diseases incidental to infants, is EXCORIATIONS, *i. e.* the *fretting away the skin* by the urine.—This is occasioned by acrid corroding particles secreted from the blood with the urine; and depends on an *acrimonious* quality of the blood.

§ 2854. The *internal* remedies are such medicines as have been related under the two last mentioned

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tioned diseases. And *externally* it is proper to wash the parts excoriated with water, warm or cold; then to wipe them dry, and to powder them with English starch or fine white flower, or chalk finely powdered; or to wash them with the following mixture:

R Gum. arabic. ℥ii. dissolv. in aq. calcis ℥iii. sp.
aloe vini rect. ℥ii. syr. balsamic. ℥ss. m. f. lotio
sanans.

§ 2855. VI. COSTIVENESS. The cause of this disease has been already taken notice of (§ 836, &c.) For the cure of it, I should advise that the *pap*, or other food be made with a *mucilaginous* decoction of the *radix althææ*; and prescribe the following medicine:

R Mucilag. ten. rad. althææ ℥iii. sal. prunell. sal.
absinth. albiss. ā ā gr. iv. mannæ opt. ℥ss. aq.
puleg. ℥iii. syr. de althææ ℥i. et f. MISTURA,
cujus capiat cochl. ss. bis, terve in die, ut opus
fuerit contra alvi adstrictionem.

§ 2856. VII. VOMITINGS. The cause of these inverted motions of the stomach is either, 1. The giving the infant too much food at a time; in which case the only remedy needful is to give it less: or,

2. Acrid humours in the contents of the stomach. Here those *alterative* medicines, which may remove that *acrimony*, and gentle purging, are proper, and like to prove sufficient remedies.

§ 2857. VIII. SURFEITS. Children are greatly subject to these. They are generally occasioned by *gormandizing*; and vomiting them with warm water is generally sufficient for the cure. And this remedy used, as soon as the child complains of being sick at stomach, I have *always* found effectual to remove the sickness, and prevent any ill consequences of his eating to excess.

§ 2858. IX. A COUGH. This results from the like causes which produce it in *adult* persons; and the

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the curative indications are the same, *viz.* to attenuate the blood,—to free it from any viscid quality,—to strengthen the vessels and vital organs,—to restore the *vis vitæ* to the standard of health, and recover the insensible perspiration to its usual quantity (*vid.* § 2481.)

§ 2859. For curing this disease in children I prescribe such medicines as the following, and with great success :

℞ *Sal. absinth. albiss. sal. prunell. ā ā* ℥i. *dissolv. in aq. alexiter. simpl. ℥iiiss. dein adde succ. limon. ℥ss. sacchar. alb. q. s. ad saporem gratum, m. f. julepum, cujus capiat cochl. i. horis tertiis ; vel,*

℞ *Sal. prunell. ℥ss. sal. martis ℥ss. dissolv. in aq. cinnam. simpl. ℥iii. dein adde syr. balsamic. ℥i. m. f. julepum, cujus capiat cochl. i. ter in die pro puero x. annorum nato, et vesperi et mane sumat gut. viii. vel x. balsam. capiv. cum aliquantillo sacchar. alb. mistas.*

§ 2860. X. The HOOPING COUGH (*tussis convulsiva infantum*) is a disease which very much deserves our consideration ; and I do not remember that I have met with a clear explanation, or account, of its productive cause, in any author.

§ 2861. It is called the *hooping cough* from the sound which the convulsive motions forcibly extort from children in their fits of coughing.

§ 2862. I may observe that a *fit of coughing* seldom ceases till a VOMITING is brought on, and a humour thereby evacuated, unless the child happens to swallow it. This matter, thrown out by vomiting, is generally clear and viscous like a mucilage or jelly.

§ 2863. The cause of this disease, in my opinion, is a diminution of the insensible perspiration.

§ 2864. I apprehend that in children, as their vessels are universally more lax than those of adult bodies, so their lymphatic arteries are also more lax, and the diameters of them more easily enlarged. And therefore, that when the quantity usually excreted from the body by *insensible perspiration*, happens by any occasion to be diminished, there then often occurs a greater flow of lymph through the lymphatic vessels into the air-vesicles of the lungs than in the time of perfect health; whence the hooping cough.

§ 2865. The lymph, evacuated into the air-vesicles clear, (by the exhalation of the thinner, most limpid parts of it, continually with the breath) acquires the consistence of a viscous MUCILAGE or *jelly*; which, when it encreases to a certain quantity, occasions a cough, which does not cease till it is brought up from the lungs. Then all is quiet till a certain fresh quantity is emptied into the lungs.

§ 2866. The reason why the fits of coughing return in some children more frequently than in others, and in the same children oftener some weeks than in others, is probably this, *viz.* the quantity of the *viscous humour*, necessary to occasion a fit of coughing, is in some children sooner collected from the lymphatic vessels than in others; and in the same children, in some weeks or days, it is collected in shorter spaces of time, than in others.

§ 2867. This account of the disease, under our consideration, implies, indeed, that the viscous, clear, jelly-like humour, which children throw out of their mouths in fits of the *hooping cough*, (often in large quantities) comes from the *lungs*, and not from the *stomach*.

§ 2868. The reason for my opinion is this, *viz.* whatever matter or phlegm happens to be lodged in the stomach, if it creates very uneasy sensations, may

may bring on vomitings, as in such cases daily happens among children, but *not a cough*, and especially not a fit of coughing, for several minutes before any vomiting happens.

§ 2869. It is a thing incomprehensible to me, how any humour in a state of rest in the stomach, and a humour which excites no vomiting, no stomach-sickness, or loathing, *can* act as a stimulus on the *larynx*, and produce an incessant coughing for minutes before a vomiting is exerted.

§ 2870. But it seems easy to apprehend that an *acrimonious* viscid humour, extravasated into the *air-vesicles* in the lungs, may (when the quantity of it is increased to a certain degree) by the action of the air passing to and from it, irritate the nerves terminating under the membrane which lines the *aspera arteria*, and affect the whole membrane, even to the *larynx*, and excite that violent *coughing* which happens in this disease.

§ 2871. This coughing, as it occasions the *lungs* more violently to contract, and expand themselves, must unavoidably agitate and move the *viscid jelly-like* humour, lodged in the *air-vesicles* upwards till it comes into the mouth, thence it is with violence thrown out of the body.

§ 2872. The consideration of what has been now delivered on *this* subject, and an attention to the state of body which those children are under who have *this* cough (who are *weakly* and of an *obstructed habit*) will lead us to the following observations :

Observ. 1. That an air *too cold* or *too moist* lessened the quantity that should have perspired from their bodies, brought on a morbid quality of their blood, and occasioned obstructions in some of the perspiratory vessels, through a deficiency in the strength of the action of their vital organs.

Obs. 2. To promote the curing children ill of this disease, they should be kept within doors, and in

in such a temperate warmth as may conduce to the opening the perspiratory pores, and promoting the insensible perspiration.

Obs. 3. Those medicines which may remove the morbid quality of the blood, and the obstructions resulting from it, and which may strengthen the action of the vital organs, and recover the insensible perspiration, are the proper remedies.

§ 2873. The remedies, which in my experience have been effectual for curing the *hooping-cough*, have been mixtures, or powders, compounded of the *salt of wormwood*, *cochineal*, *calx of antimony*, *millipedes* prepared, *flower of sulphur*, &c. proportioning the doses according to the ages of the children: intermixing, now and then, a *gentle purge* of manna, to carry from the stomach or bowels the phlegm which may have been swallowed by the child. I say *gentle purge*, because that will not hinder or lessen the discharge by the insensible perspiration, and yet be effectual to clear the stomach and bowels of what should be evacuated by stool.

§ 2874. Blisters may be sometimes ordered with advantage.

§ 2875. As for diet proper in this disease; I would advise apples boiled soft and mixed with milk, sweetened with sugar to the palate, for one principal part of it. And a decoction of figs with raisins of the sun stoned, of which half a spoonful, or a spoonful, may be given warm two or three times in a day.

HIST. I.

§ 2876. For a child, nineteen months old, which had the *hooping-cough*, I prescribed the following mixture; ordering it to be purged with *manna* after it was taken; which method was effectual to its recovery:

R *Milliped. ppt. flor. sulphur. antimon. diaphoret.*
 ā ā ℥ss. *sal. absinth. gr. vi. aq. lact. alexiter.*
 ℥iiss.

ʒiiss. syr. balsamic. ʒis. et f. *mistura*, de qua
capiat cochl. i. ter in die.

§ 2877. Another instance of this disease in a child four years old, with an account of the remedies by which it was cured, may be seen in Case 6, related in my 2d Vol. on Fevers.

§ 2878. XI. PHTHISIS, (the *consumption*, and *hectic fever*). This proceeds here from the same kind of causes as in adult bodies, and is to be cured by the like remedies (*vid.* § 2487.) proportioning the doses to the age of the child and its bulk of body.

§ 2879. XII. WORMS, which in children are to be cured by the same medicines which destroy them in adult bodies, given in proper doses (*vid.* § 2532.)

§ 2880. XIII. The RICKETS. This disease arises from a *poorness* and *viscidty* of the blood, and sometimes an *acrimony* of it also; whence obstructions to the distribution of the *nutriment*.

§ 2881. The same sorts of medicines which are effectual for the cure of the *chlorosis* (which I shall mention hereafter) are proper remedies against the *rickets*, the doses being lessened according to the age of the patient. I may add, that the *ens veneris* (called in our new pharmacopœia *flores martialis*) is a very suitable remedy against this disease, and what I have prescribed with success.

§ 2882. XIV. CONVULSIONS: which are inter-nate involuntary motions of antagonist muscles, proceeding either, 1. From *repletion*; or, 2. From *depletion*; or, 3. From *acrid humours*.

§ 2883. 1. If these result from repletion, or an excess in the quantity of the animal fluid, which very often is the case in infants and children; and which we may know pretty well by the bulk of their bodies, *evacuants* are the needful remedies,
c. g.

1. Gently

1. Gently purge the child so as to procure three, or four, or five stools, to diminish the lymphatic fluids, and make a draining from the sanguine arteries of such humours, which might occasion morbid effects.

§ 2884. 2. Then order some blood to be taken from the child, either by *lancet* or *leeches*, the quantity of which may be determined by considering the quantities of the current blood contained in the human bodies of different weights; a table of which may be seen in my first Volume on Fevers, p. 298.

But for my own part, whatever I thought to be the quantity of the excess, I would not take it away all at once, without some urgent necessity, because that would weaken the vessels, which ought to have time allowed to contract in proportion to the diminished quantity of the blood.

§ 2885. 3. After bleeding the child, it will be proper to prescribe some *diuretic* medicine, *e. g.* a *saline* julep to increase the evacuation by urine; and sometimes to put into it a few grains of *sal martis*, and once in four or five days to repeat a gentle purge, till the excess of the animal fluids is duly removed.

§ 2886. 2. If the convulsions of a child arise from *depletion*, or a want of a *sufficient* quantity of blood; restorative aliments, with some gentle cordials, are the proper remedies.

§ 2887. 3. If the convulsions are produced by *acid* particles, excreted from the blood, those medicines which may free the blood from its acrimony, are the proper remedies, *e. g.*

R *Antimon. diaphoret. pulveris ad guttetam, salis absinth. ā ā gr. viii. aq. alexiteriæ simpl. ʒxiv. syr. balsamic. ʒii. et f. mistura, cujus capiat ʒi.*
vel

§ii. *semel, vel bis vel ter in die, exhibeantur, phialâ prius agitâ.*

§ 2888. XV. THE EPILEPSY. This disease, in adult persons, has been already described, and considered as to its causes and proper remedies (§ 2405.) and from what was then observed, the management of children under these terrible fits, and the proper remedies for them, may be easily understood.

§ 2889. XVI. CHOREA SANCTI VITI. This is a peculiar sort of *convulsive* motions: and what has been said concerning convulsions and *epileptic* fits, is applicable to this. Only I may add, as to this distemper, that the *ens veneris*, five *flores martiales*, the *cortex peruvianus*, and the *cortex eleutheriæ*, may be reckoned among the proper remedies.

§ 2890. XVII. THE HYDROCEPHALUS; which is a collection of an extravasated watery humour in the head. The causes productive of it are a *viscid* blood, with an excess of the quantity of the lymph, and a general laxity of the vessels.

§ 2891. Therefore, for the cure of this disease, we must direct such medicines as may remove the morbid quality of the blood, lessen the quantity of the lymph, strengthen the vessels, and maintain the *vis vitæ*.

§ 2892. How these intentions may be happily pursued, is evident from many things which have been delivered. But the symptoms of children under this distemper are very different; and they must be considered to guide the person that is to prescribe for the sick.

§ 2893. I will only add, that in my practice I always order a perpetual blister to be applied *juxta cranium*, and have always found great advantage from it.

§ 2894. XVIII. The ALPECIA, or falling off of the hair. This I have considered before (§ 2798.) as I have also the following:

§ 2895.

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§ 2895. XIX. The PERNIO, KIBES, OR CHILBLAINS (§ 2779, &c.)

§ 2896. XX. INCONTINENCE OF URINE, OR *pissing-a-bed*, is a distemper incidental to some children.

§ 2897. The cause of this disease is a *laxity* of the *sphincter* of the *bladder*, and an *acrimony* of the *urine*. The curative indications therefore are evident.

§ 2898. I sometimes prescribe in the following manner :

R *Tinct. rhabarb. vinos. ʒiſs. aq. menthæ vulg. simpl. ʒſs. et f. mistura, cujus capiat cochl. i. plus vel minus pro ratione ætatis primo mane, ita, ut alvus bis vel ter dejecerit fæces : et sic leniter expurgetur corpus tertiis diebus, ad tres, vel quatuor vices.*

R *Aq. cinam. simpl. ʒiv. tinct. martis Helvetii ʒiſs. sp. lavendul. comp. syr. balsamic. ā ā ʒii. m. f. julepum, cujus capiat cochl. ſs. bis in die, superbibendo ʒii. vel iii. theæ cum rad. tormentillæ pptæ. et cum sacchar. albo ad saporem gratum edulcatæ, diebus à purgatione vacuis.*

R *Sp. vini rect. ʒv. sp. rorismarin. ʒi. m. f. fotus, quo vesicæ regio vesperi et mane fricetur.*

§ 2899. XXI. As for ACUTE DISEASES, *e. g.* fevers from *inspissating* causes, *intermitting*, *remitting* and *continual*; and fevers from *dissolvent* causes of every kind; and likewise those from complex causes; when I am called to children under any of them, I prescribe the same sorts of medicines that I do for adult persons, only proportioning the doses to the age of the child, and his bulk of body.

§ 2900. XXII. Children and youth are much subject to CUTANEOUS DISEASES, which are to be cured by the same sorts of remedies which are proper for the same disease in adult persons (§ 2733, &c.)

I shall presently shew you how the doses of medicines may be proportioned to the *ages* and *sizes* of young patients.

§ 2901. III. THE last class of diseases I proposed to consider, comprehends those which are *peculiar* to FEMALE BODIES. These may subdivided into three classes; *viz.*

1. Those which female bodies are subject to *before marriage*.

2. Those which happen to them in the *time of pregnancy*.

3. Those which befall women in *child-bed*: by which term I include the first month from the birth of the child.

§ 2902. I. Of the diseases peculiar to female bodies *before marriage*. The chief of these are the following:

1. CHLOROSIS, five MORBUS VIRGINEUS, five ICTERUS ALBUS, the *white jaundice*, or, as it is generally called with us, the *green sickness*.

§ 2903. This is a distemper very similar to a *leucophlegmatia*. The productive causes of it are,

1. An *excess* of the *lymph*.

2. A *viscid* quality of the *animal* fluids.

3. An obstructed circulation of the blood.

4. A deficiency in the quantity of the *red globules* of the blood, or too little blood, and also too small a quantity of the nervous fluid.

§ 2904. The curative indications in this disease, are to *alter* or *abolish* the *viscid* quality of the fluids, remove obstructions, diminish the quantity of the lymph, and strengthen the vessels.

§ 2905. For these purposes (§ 2903.) *nitrous* and *chalybeate* SALTS are proper ingredients in the composition of medicines.

HIST. I.

§ 2906. In the year 1715, I prescribed for a young lady aged eleven years, who had laboured many months under this distemper (and had taken an abundance

abundance of things by the advice of an eminent physician ineffectually) the following *powders* and *infusion*; in the use of which she soon grew much better.

℞ *Sal martis Riverii* ℥i. *cinnab. nativ.* gr. xv. *musc. corallin. ppt.* ʒss. *sal. prunell.* ʒiss. *ol. menth. gut.* vii. m. f. *pulvis, in partes septem æquales dividendus; quarum capiat unam vespери et mane cum syr. de quinque rad. aperientibus mistam, superbibend. cochl. iii. vel iv. infus. sequent.*

℞ *Rad. gentian.* ʒiii. *cortic. sassafras.* ʒiii. *fol. absinth. m. i. flor. chamæmel. p. ii. sem. cardui benediēt.* ʒi. *aq. font. vin. alb. ā ā ʒx. m. f. infusum, clausē et calidē per horas aliquot; dein filtretur liquor.*

Afterwards I prescribed the following medicines :

℞ *Sal martis River.* ℥i. *antimon. subtiliss. p.* ℥ii. *milliped. ppt. mass. pil. rufi, gum. ammoniac. ā ā ʒi. balsam. peru. gut. xx. balsam. capiv. q. s. m. f. pilule mediocres inaurandæ: quarum capiat iii. vesperi et mane, superbibend. cochl. iv. infus. sequent.*

℞ *Rad. gentian.* ʒss. *cortic. sassafras.* ʒiii. *herb. heder terrestr. absinth. vulg. ā ā m. i. sem. cardui benediēt. cubebæ. ā ā ʒi. aq. font. bullientis ℔i. m. et tepidē infundantur per horas iv. sub finem addendo vin. alb. ℔i. dein filtretur infusum.*

She recovered perfect health in the use of these remedies, and long enjoyed it afterwards.

HIST. II.

§ 2907. In the year 1716, for another girl aged ten years, under the same disease, I prescribed the following powers with the desired success. A dose of them was taken every evening and morning, mixed with the syrup of the five opening roots,

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drinking after it three spoonfuls of an aperitive
bitter infusion.

R *Sal mart. River. sal prunell. ā ā ʒiſs. muſc.
corallin. ppti. cinnab. nativ. āā gr. xv. m. f.
pulvis, in partes xiv. aquales dividendus.*

§ 2908. II. The WANT of the MENSES in bodies
of due age for having them.

§ 2909. This often is the consequence of the
CHLOROSIS, and when it is so, the method of cure
is to remove the *cacheetic* habit of body, by such
remedies as have been mentioned under the last
head.

§ 2910. But sometimes this *want* of the *menſes*
happens to young women of a pretty *florid* coun-
tenance, and of a sanguine constitution, in whom
no symptoms of an excess in the quantity of the
lymph, and no symptoms of a *viscid* quality of the
animal fluids, occur to our notice.

§ 2911. In such cases (§ 2910.) I apprehend
that a *spissitude* of the blood, and a *rigidity* of the
vessels, are the impediments to their having the
menſes.

§ 2912. These patients are to be treated in a
different manner from the former (§ 2909.) and I
esteem it proper to take away some blood by the
lancet, e. g. ʒiv. vel vi. and then to prescribe such
medicines as may thin the blood, and relax their
vessels, e. g.

R *Æthiop. mineral. ʒſs. sal. prunell. ʒi. extract.
bellebor. nigr. ʒi. conserv. lujulæ (vel conserv.
fruct. cynosbat.) ʒvi. syr. bacc. sambuci q. ſ.
m. f. electarium, cujus capiat quantitatem nuc.
moschat. bis in die, superbibend. haust. decoct.
bord.*

R *Sp. nitri dulc. q. v. capiat gut. xv. vel xx. ex
haustu potus communis bis terre de die.*

R *Rad. althææ (vel sem. lini) ʒiv. rad. aris-
toloach. rotund. ʒii. coq. cum aq. fluvial. lbv.*

ad lbiv. dein liquori colato adde aceti partem æqualem, et sic f. vaporarium, vapor hujus decocti calentis ex sellâ perforatâ recipiatur.

§ 2913. III. Of the SUPPRESSION of the MENSES in those who for a while have had them.

§ 2914. As to the *morbid* causes of this disease; these generally are, 1. A *viscid* and *glutinous* quality of the blood, whence obstructions. The curative indications here are the same as in the *chlorosis*; thus, the *sal martis*, vel *æthiops mineral. rad. curcumæ, conserv. absinth. vulg. ol. sabinae, ol. menthae*, are proper ingredients for making *electaries*: and the *rad. aristoloch. rotund. rad. gentian. fol. absinth. vulg. centaur. minor. sem. anis. gran. paradisi. cubebæ*, are proper for decoctions or infusions, &c.

§ 2915. IV. HYSTERIC AFFECTIONS require our consideration. The knowledge of these is easily deduced from what has been said of convulsive diseases. Here we should carefully consider the state of the nervous fluid, as to its QUANTITY, whether that *exceeds* or is *deficient*.

§ 2916. If there is no deficiency in the quantity of the nervous fluid, the following method is proper, and what I have used with the desired success. I order the forehead, temples, and nostrils of the patient, to be fomented with a mixture made with equal parts of vinegar and water, whilst she is under fits, and prescribe as follows, *viz.*

R Pulv. è chel. cancr. simpl. pulv. contrayerv. comp. ā ā ʒss. sal. prunell. gr. vii. sal. succin. gr. iii. aq. alexiter. simpl. ʒi. syr. balsamic. ʒii. sp. vin. camphorat. sp. nitr. dulc. ā ā gut. x. m. f. haustus, horis sextis bibendus quamdiu postulaverit occasio.

R Sp. nitr. dulc. tinet. assætud. ā ā ʒii. et f. mistura: cujus capiat gut. xx. vel xxx. in haust. aq. puræ cum sacchar. alb. parum edul-

cat. subindè ut opus fuerit contra affectiones hystericas.

§ 2917. V. The *immoderate* FLUX of the MENSES is another complaint requiring our consideration.

§ 2918. This may result, either, 1. From *scorbutic* SALTS *sui generis* of a dissolvent nature, which comminute the red globules into less, and *relax* the vessels. When this is the case, we may know it by some other concomitant symptoms, discovering the patient to be under a scorbutic habit of body, with a laxity of the *muscular fibres*, and *animal vessels*.

§ 2919. Or, 2. It may be owing to a *deficiency* in the *contractile* power of the vessels; the sanguine veins (through which the blood passes in these monthly evacuations) not contracting fast enough to put a timely stop to the flux.

§ 2920. When the immoderate flux proceeds from the first cause mentioned, vegetable *acids*, the *succus limonum et aurantiorum*, *cremor tartari*, *sp. vitrioli*, *sp. nitr. dulc.* and *bolii omnes*, are proper remedies; and so is also the *balsamum restringens*.

§ 2921. When the immoderate flux proceeds from the second cause, then the *sal martis*, *tinct. martis Helvetii*, *flavedo corticum aurantiorum*, *balsamum capivi*, are suitable medicines. And I have often prescribed with sufficient efficacy in the following manner; varying the proportion of the ingredients as best suited the case of the patient.

R *Aq. menthæ vulg. simpl. tinct. martis Helvetii*
ā ā ʒiii. m. f. julepum, cujus capiat cochl. i. in
ʒiv. theæ cum rad. tormentillæ pptæ. et cum
saccharo albo ad saporem gratum edulcata
horis sextis, vel sæpius si postulaverit occasio,
donec cruoris fluxus cessaverit.

§ 2922. VI. FLUOR ALBUS, or the flux of the *whites*. This is a whitish humour evacuated from the

the *lacunæ* in the *vagina uteri*, from a *laxity* of the *vessels*, and *glandules* there situated, and from an *excess* in the quantity of the *lymph*.

§ 2923. The curative indications here are to diminish the lymph and remove the laxity of the vessels. The *balsamum restringens* (which alone has often been an effectual remedy) *chalybeates*, the *aq. benedict. composit. balsam. capivi*, *decoction of the woods*, and the *bagnio*, are proper in such cases.

§ 2924. II. I AM NOW to consider the diseases happening to women during their *PREGNANCY*. The principal of these are the following, *viz.*

§ 2925. I. *VOMITINGS*. The *elixir vitrioli* in this case is a good medicine: thus,

R *Elixir vitriol. acid. q. v. capiat gut. x. vel xv. vel xx. in ℥iii. theæ cum menthâ vulg. vel cum rad. tormentillæ pptæ. bis in die.*

Such *juleps* as the following may also be used:

R *Sal. absinth. ℥ss. sal. martis ℥ss. dissolv. in aq. menth. vulg. simpl. ℥iiiss. dein adde aq. menth. vulg. spirituos. ℥ii. succ. limon. ℥ss. sacchar. alb. gr. x. vel q. s. ad saporem gratum, m. f. julepum, cujus capiat cochl. i. vel ii. ut opus fuerit contra ventriculi ægri tudines.*

§ 2926. II. *CATARRHS* and *COUGHS*. These are to be cured by those medicines which augment the insensible perspiration.

§ 2927. III. The *SWELLING* of the *legs*. This sometimes happens to women in their pregnancy, from a *viscid lymph*. Here *DIURETICS* are proper, *e. g.*

R *Sp. nitr. dulc. ℥ss. tinct. cantharidum, sp. vin. camphorat. ā ā ℥i. et f. mistura, cujus capiat gut. xx. vel xxv. bis in die, in haust. pseudotheæ cum flavedine cortic. aurant. pptæ.*

§ 2928. IV. A LOOSENESS sometimes happens to women with child. The causes of it, and the proper remedies may easily be understood from what has been said concerning DIARRHOEAS (§ 2567, &c.) and the following are proper remedies, *viz.*

℞ *Tinct. rhabarb. vinos. ʒiiiss. aq. menthæ vulg. spirit. ʒfs. m. pro dosi matutino tempore bibendâ, et repetendâ semel in die singulis vel alternis diebus si fuerit occasio, ad tertiam vicem.*

℞ *Gum. arabic. ʒiii. cretæ albæ ʒi. aq. cinam. simpl. ʒvss. tinct. martis Helvetii ʒfs. sacchar. albi bis purificati ʒi. et f. mistura, cujus tepidè capiat cochl. ii. post singulas vel alternas alvi dejectiones liquidas.*

§ 2929. V. The next point I shall take into consideration is that of ABORTION; which is the coming away of the fœtus from a woman before the proper period of her gestation.

§ 2930. This may be occasioned by various incidents, as falls, frights, violent passions, &c. which we cannot foresee. But we should know what morbid state of the body brings a woman into the danger of miscarrying, or losing her child before the proper time of her delivery comes. We should also know by what remedies that state of the body may be altered and amended, and the abortion prevented.

§ 2931. Here I must observe, that while a pregnant woman is in health, and has her due quantity of blood, and the circulation of it free and easy; and while all the muscular fibres, the animal vessels, membranes and muscles, remain duly firm and strong, she is in no danger of miscarrying by means of internal causes.

§ 2932. Therefore, if a pregnant woman is in danger of miscarrying, these following causes previously subsist in her body, *viz.* 1. A deficiency in the

the quantity of her blood, and of nutriment for herself and the child she goes with; whence it languishes and does not sufficiently increase in bulk and strength: *Or*,

2. An obstructed circulation, or obstructions in the minute capillary vessels, from a watery and viscid blood. Hence it is we find the pulse too quick: *Or*,

3. A *laxity* of the muscular fibres and animal vessels. Hence a weakness of the membranes and muscles, and a deficiency in the strength of the solids of the woman, and in the force of the action of the vital organs; whence the danger of *abortion*.

§ 2933. The consideration of these things (§ 293.2) may convince us of the *impropriety* of *taking blood* from a woman with child; and lead us to apprehend that such an evacuation only tends to promote the several causes of *abortion*. You have I think weighty reasons against this practice in my *Compendium* (*Ed.* 2. p. 69, 70, 71.) to which I refer you.

§ 2934. When, therefore, we are called to advise for a woman who is in danger of miscarrying, we should carefully enquire into the state of the *fluids* and *solids* of her body, and prescribe such medicines as may remove the morbid quality of her blood; such as may strengthen all the vessels, membranes and muscles, maintain the *vis vite*, and recover and preserve a free and vigorous circulation of the blood and other fluids.

§ 2935. Such a method, or such remedies, we may reasonably hope, will prove advantageous both to the woman and the child she goes with.

§ 2936. We may be confirmed in these sentiments, by considering the nature of those *symptoms*, which shew that a woman is in danger of miscarrying. These are,

1. A *flacidity* of her *breasts*, which before were *turgid*.

2. A *heaviness* in her *eyes*, which could not have happened without an obstruction in some of the vessels of them.

3. *Pains* in her *loins*, another effect of obstructions.

4. *Descent* of her *burthen*; which could not have been without some abatement of the strength and firmness (or relaxation) of the vessels and ligaments of the womb.

5. Some *evacuation* of *blood* from the *uterus*. or *vagina uteri*; which could not be without a relaxation of those veins from which the blood flows; and from the relaxation of those vessels, surely we may infer a laxity of the others.

§ 2937. As for proper medicines to prevent *abortion*, such as these following may be recommended.

R *Rad. tormentillæ, pulv. contrayerv. comp. ā ā gr. xv. mithridat. Si. syr. balsamic. q. s. m. f. bolus horis sextis sumendus, superbibend. cochl. iv. julepi sequent.*

R *Sal. succin. gr. viii. aq. cinam. simpl. ℥iv. aq. menth. vulg. simpl. ℥iii. aq. nuc. moschatæ ℥i. sacchar. alb. q. s. ad saporem gratum, m. f. julepum.*

These I prescribed with success for a woman aged twenty-five years, who had miscarried twice; she complained much of pains in her back, bowels, and down into her right groin; and of want of appetite and lowness of her spirits.

§ 2938. I have likewise prescribed with success, such a julep as the following:

R *Aq. cinam. simpl. (vel aq. menth. vulg. simpl.) ℥iii. aq. cinam. spirituos. tinēt. martis Helvetii ā ā ℥iiss. sp. lavendul. gut. xl. sacchar. crystallin. bis purificati q. s. ad saporem gratum, m. f.*

m. f. julepum corroborans, cujus capiat cochl.
ii. bis terve in die.

§ 2939. I frequently advise the drinking a draught of tea, made with the *peels* of *Seville oranges*, and sweetened to the palate with loaf-sugar, twice a day. And a tea made with the roots of *tormentill.* and a few cloves, and sweetened, is a proper and grateful remedy.

§ 2940. The following drops are likewise proper, especially when there is a *viscid* quality of the blood.

R *Sp. vitriol. ℥ii. sp. vin. rect. ℥ss. et f. mistura, cujus capiat in ℥iv. infus. cortic. aurant. cum saccharo edulcati, tot guttas quot sufficient ad gratam aciditatem bis terve in die: vel,*

R *Sp. vitriol. tinct. serpentar. ā ā ℥iii. et f. mistura ut prior exhibenda: vel,*

R *Sp. vitriol. ℥ii. tinct. martis Helvet. ℥ss. et f. mistura ut prior sumenda.*

§ 2941. I may add, that the *corallium rubrum*, *terra japon.* the *boles*, &c. with the *rad. serpentar.* vel *rad. zedoar.* are sometimes proper ingredients for compounding medicines to prevent a flux of blood from the womb. But if a copious flux of blood has happened, and continued some time, a miscarriage is unavoidable.

III. I AM to consider the diseases incidental to women in *child-bed*. The chief of these are the following:

§ 2942. I. FLOODINGS. These happen because the ruptured sanguine vessels do not contract fast enough. The proper remedies are those medicines which will occasion them to contract. Thus, for a woman who flooded much after a miscarriage, even to a fainting, and near a total abolition of her pulse,

pulse, I prescribed the following remedies, which, with the divine blessing, recovered her:

R *Castor. Russ. ℥ss. lapid. hæmatit pp'i. terræ japonic. ā ā gr. xv. theriac. andromachi, conserv. lujulæ ā ā ℥ss. syr. pæon. q. s. m. f. bolus boris jectis sumendus quamdiu postulaverit occasio, tepidè superbibendo cyathum vini rubri adusti.*

R *Ol. sulph. per campan. ℥i. cujus capiat in aquâ tepidâ cum sacchar. edulcatâ tot guttas quot sufficiant ad gratum aciditatem pro potu communi.*

The *elixir vitriol. terra japonica, cum rad. tormen-till.* are proper.

§ 2942. II. AFTER-PAINS. This is a disorder which frequently happens to women in their child-bed, soon after they are delivered of their burden.

For the better understanding the causes productive of these pains, it may be proper to observe a few things, *viz.*

1. That when (upon the birth of the child) the *placenta* is separated from the womb, all the sanguine vessels, which passed through the membranes of the womb to the *placenta*, are rent asunder, close at the inner superficies of the womb.

2. That the consequence of this rupture of the sanguine vessels, is a *flux of blood* into the cavity of the womb, and thence through the *vagina ad extra*. Which flux of blood is greater or lesser in proportion to the diameter of the sanguine vessels, the *impetus* of the blood, and the degree of *slowness* in the contraction of the orifices of those vessels.

3. That as by the *gradual* CONTRACTION of the orifices of the ruptured sanguine vessels, the flux of red blood from the womb gradually abates; and as the diameter of their orifices diminish, so the *red* colour of the fluid evacuated does likewise abate, till it looks of the colour of the *serum* of the blood,
which

which grows more *limpid* and *pale* till the orifices of the ruptured vessels are quite closed, and then the flux entirely ceases.

§ 2944. Thus (§ 2943.) happen,—thus proceed,—and thus terminate those evacuations from the womb, which are called the *lochia*, or *child-bed-purgations*, which continue in some women longer than in others, as the orifices of the broken vessels in some women are longer in contracting close.

§ 2945. Be pleased also to observe, that the following *alterations* happen in a woman, in consequence of her being delivered of her burthen, *viz.*

1. Her womb becomes empty.
2. The coats, or membranes, which compose the womb, collapse, and fall into a contracting state.
3. All the ruptured vessels, and their component fibres, come to exert that *contractile* force which is natural to them.
4. The great pressure, which was against the intestines before the woman's delivery is removed.
5. The cavity between the intestines and the *peritonæum* is enlarged.

§ 2946. The consideration of these things (§ 2943. 2945.) may well lead us to apprehend, that *after-pains* are produced either

1. By a too quick and strong *contraction* of the orifices of the capillary branches of the *spermatic* and *hypogastric* arteries, terminating in the membranes of the womb, and ruptured by the separation of the *placenta* from it; their contraction occasioning those arteries to distend, and press too much against the extremities of the nerves situated in their coats; which too great pressure produces pain.

§ 2947. This notion (§ 2946.) is confirmed by the efficacy of those *emollient* medicines which tend
to

to render the contraction of the vessels more slow and moderate, such as *sperma ceti*, &c. Or,

2. The passing of clods of coagulated blood through the *vagina uteri* (made sore by the violence it suffered from the child's passing through it) may sometimes produce the *after-pains*. When this is the case, the woman may perceive her pains to be in the passage from the womb. Or,

3. A too quick contraction of the ligaments of the womb. Or,

4. Elastic air in the cavities of the intestines set at liberty by the womb being emptied of its burden.

§ 2948. Remedies effectual for removing these pains, may be seen in (*Hist.* 37, 38. of) my *Treatise on painful Distempers*; to which for brevity sake I must refer you.

§ 2949. III. The *LOCHIA deficient*. The cause hereof is a *too quick* contraction of the vessels in the *uterus*, divided by the separation of the after-burthen; and the remedies against *after-pains* are proper in this case.

§ 2950. IV. The *LOCHIA immoderate*. The cause of this is a too slow contraction of those vessels mentioned; the medicines against *loodings* are the proper remedies.

§ 2951. V. *PROLAPSUS UTERI*. This is the effect of a *moist intemperies* of it, or a laxity of its fibres and membranes. How this is to be remedied may well be understood by what has been before delivered (§ 2842, &c.)

§ 2952. VI. *MILK FEVERS*. These arise from a want of a due secretion of milk from the blood, or through the want of its evacuation at the nipples. The drinking freely of proper diluents, as *barley-water*, weak *caudle*, *baum-tea*, &c. and gently rubbing the breasts with a warm hand or cloth, are frequently

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frequently all that are necessary in these cases. But if, notwithstanding the use of these, the fever increases, it generally becomes of the putrid kind, and must be treated as such.

§ 2953. VII. A LOOSENESS. This results from a dissolvent quality of the blood, a too great tenuity of the lymph, and laxity of the glands, and vessels of the intestines. For the method of treating this disorder, see § 859. 2567. 2571.

§ 2954. VIII. A PHRENZY. This is a very affecting disease in child-bed women. The cure is to be attempted by attenuating the too viscid and bulky particles in the animal fluids, and rendering them capable of passing easily through the obstructed vessels.

§ 2955. IX. ACUTE DISEASES, such as *fevers*, the *small-pox*, &c. These sometimes happen to women in the time of their *pregnancy*, and sometimes during their *lying-in*.

§ 2956. When they happen to them in the time of their *pregnancy*, they may be cured with the same medicines as if they were not with child, provided that we direct their being compounded, so as that they may strengthen both the woman and the child she goes with.—And when acute diseases happen to women in child-bed, they may be recovered by the like remedies as in other periods of life; provided we consider what purgations the woman has had, and whether her strength has been diminished thereby, and accordingly suit our remedies; *i. e.* so as not unseasonably to stop the proper evacuations, nor to neglect advising the proper restoratives.

§ 2957. THE SIXTH THING proposed to be done [in these Lectures] is the *giving directions* for *examining* the patient.

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A *physician* can never give the needful advices to his patient, nor prescribe rightly for his recovery, without knowing thoroughly the state of his body, and the nature of his disease.—And he cannot have the true knowledge of these things without a very particular and careful examination of him.

§ 2958. This examination consists in two things :

I. In putting proper questions :

II. In the observance of some particular rules, or the performance of some particular actions.

§ 2959. The proper QUESTIONS to be put are such as these following, *viz.*

Quest. 1. How old are you ?—Because there is a difference in the state of the body in the different periods of life.

Quest. 2. How long have you been sick? *or*, how many days is it since you was first taken ill?—if the disease is of the acute kind.

Quest. 3. Did you enjoy good health before ?

Quest. 4. What time of the day, or night, was you taken ill?—Because we must reckon twenty-four hours to every day's sickness; and begin each day with the same hour that the sickness began, whether that happened in the forenoon or afternoon, or in the night.

Quest. 5. In what manner was you taken ill ?

Quest. 6. Have you pain in any part of the body? and of what kind that is ?

Quest. 7. Have you been sick at your stomach? or had any vomitings ?

Quest. 8. What sorts of foods did you, for the most part, live upon in the time of your health? *or*, What things did you use to eat? and what liquors did you use to drink?—By such inquiries you will come to know much of the quality of your patient's blood.

Quest. 9. How do *acids*, e. g. *limons*, *vinegar*, &c. agree with you?—For by knowing whether
these

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these agree or disagree, we shall be better able to suit our remedies.

Quest. 10. How do you make water? do you do it freely, easily, and often?

Quest. 11. What quantity of liquids do you commonly drink in twenty-four hours, in the time of your health?

Quest. 12. What quantity of water may you *now* make in twenty-four hours?

Quest. 13. How do you go to stool?—When had you a stool last?—Was it of a natural consistence, or loose?—How many stools have you had since you fell sick?

Quest. 14. How do you sleep in the night?—Is your sleep quiet and refreshing, or disturbed with frightful dreams?

Quest. 15. Have you any straitness or *oppression* in your chest or stomach?

Quest. 16. How are you as to thirstiness?

Quest. 17. What do you take as drink, or to nourish you? Do you take your aliments pretty freely, or have you a reluctance to them?

Quest. 18. Have you sweated at any time since you was taken ill?—If so, how long have your *sweats* continued at a time; and have they been *cold*, or *clammy*, or *hot*, and *general*? Or only from some particular part; and from what part?

§ 2960. These enquiries are necessary in order to know the state of the animal excretions; and it is of great importance for the physician to get this knowledge:

§ 2961. But there are some further questions needful, relating to remedies used; *e. g.*

1. What has been done for you?—Have you been *blooded*? how often? how much blood has been taken from you?

This is a material enquiry: because if the patient had been *plethoric* before, yet the excess in the

quantity of his blood, very likely was removed by the bleeding; and then there can be no reasonable argument for bleeding him again: and if he was not *plethoric*, the taking blood from him has been an injury to him, and doubtless ought not to be repeated.

Quest. 2. Have you been vomited?

Quest. 3. Have you been purged?

Quest. 4. What other sorts of remedies have you taken? and what effects have they had?

§ 2962. II. The RULES to be observed, or actions to be performed in *examining* a patient, are these following:

Rule 1. Observe the *constitution* of your patient; whether he be of the *temperate*, or *sanguine*, or *lymphatic* habit. This you may know by those signs I mentioned to you, when I discoursed on the different *constitutions* of human bodies.

It is a matter of importance to find out the particular constitution of your patient, because you must have a special regard to it in your advices about his *diet* and *regimen*, and in your prescriptions, if you would act with due propriety, and serve your patient in the manner which may be most for his advantage.

§ 2963. *Rule* 2. Feel the flesh of his arms; and observe whether the *muscles* are *firm* and *hard*, or *lax* and *flabby*; and in what degree they are so. Because the knowledge of their state as to *rigidity* or *laxity*, is necessary to guide you in prescribing the most proper remedies.

§ 2964. *Rule* 3. Feel your patient's *pulse*, at least for three or four minutes together; and observe the state of it as to *strength* or *weakness*, *quickness* or *slowness*; the different degrees of it; and its *equality* and *inequality*. Because the state of the PULSE is a chief INDEX to direct you what medicines to use for his recovery, and how to adjust the

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proportions of the ingredients. For if the PULSE is too *quick*, you must contrive your medicines so as to render the pulsations of the artery slower:— if it be too *slow*, then to render them quicker:— if too strong, then to render them weaker:— if too weak then to render them stronger.—In short, your endeavours should be to compound your medicines so that they may be effectual to recover the pulse to its healthful state.

§ 2965. *Rule 4.* If the PULSE intermits, observe how often it does so in telling 20, or 30, or 40, or 50 beats. Or, tell the number of the pulses till an intermission happens, and then begin again. I have frequently done so, and found the intermissions *thus*, viz. 1, 2, 3.—1, 2, 3, 4, 5, 6, 7.—1, 2, 3, 4, 5, 6, 7, 8, 9, 10.—1, 2.—1, 2, 3, 4.—1, 2, 3, 4, 5, 6, 7, 8, 9, &c.

§ 2966. *Rule 5.* In *acute* diseases feel the side of the patient's neck, near the jugular arteries and veins, to find out the degree of the *beat* of the blood. You will often find great heat in the neck, when the arms and hands are temperate as to heat; and *vice versa*.

§ 2967. *Rule 6.* Look on the *tongue*; and carefully observe the state of it, as to the *colour*, *driness* or *moistness* of it.

§ 2968. *Rule 7.* Take notice of the patient's respiration or breathing.

§ 2969. *Rule 8.* Inspect your patient's *urine* every day in acute diseases; and take notice of its colour and contents, &c.—Order a wine-glass to be half filled out of every quantity he makes, and let the several glasses be set in the same order that the water contained was made.

§ 2970. *Rule 9.* Inspect your patient's *stools*; and know if they are frequent, or loose.

§ 2971. *Rule 10.* In acute diseases I inspect the patient's *neck*, *breast*, *arms*, &c. to see whether

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there be any *eruption* coming out; and if there be, observe of what sort it is.

A *due* examination of a sick person consists very much in putting *such* questions, and performing *such* actions as have been mentioned to you.

I COME now to consider some proper *WAYS* of *compounding* medicines, or to lay down *some observations relating thereunto*; and to give some *RULES* about *prescribing* for *adult* persons, *children*, and *infants*. And,

§ 2972. I. As to the *compounding* medicines, be pleased to attend to the following observation:

Obs. 1. The mixture of *refrigerating* and *heating* ingredients in a certain degree, or proportion of one to the other, makes the compound or medicine to be of a *temperate* nature; that is, neither *cooling* nor *heating*. Medicines compounded in such proportions, are most suitable when the *pulse* must neither be raised nor depressed.

§ 2973. *Obs. 2.* If there is more of the *refrigerating* ingredients in a composition than is necessary to produce the *temperate* quality, the medicine compounded will be more or less *refrigerating*, as the exceeding proportion of the *refrigerating* ingredient is more or less. Medicines should be compounded in this manner for remedies in all *ardent* and *inflammatory* fevers, and whenever the pulse is both too strong and too quick, and the vital heat too great: and the more *intense* the *febrile* heat is, the more *refrigerating* should the medicines be made, and the more *largely* should they be given.

§ 2974. *Obs. 3.* If there is more of the *heating* ingredient in the composition than is necessary to make the *temperate* quality, the medicine compounded becomes *heating*; and is more or less so, as the exceeding proportion of the heating ingredient

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dient is more or less. Alterative medicines of this kind are needful, when the vital heat is *less* than it ought to be, and when the *pulse* is *weak*, or not *sufficiently strong*.

§ 2975. Very important ends may be obtained by compounding medicines both of *refrigerating* and *beating* ingredients in a *due* proportion, *viz.*

1. An happy abatement of the force and celerity of the pulse, and of the excess of heat in ardent and inflammatory fevers, as well as a removal of the *spissid* or *viscid* quality of the animal fluids subsisting in such diseases. 2. A recovering of the vital strength to the standard of health, and the natural force of cohesion in the component parts of the muscular fibres and animal vessels, as well as altering the *dissolvent* quality subsisting in the blood, in putrid or pestilential fevers.

It deserves your notice, that some simple or natural medicines are thus compounded, *e. g. oranges* and *limons* are such compositions, their juice being *refrigerating*, and their peels *beating*.

§ 2976. As to the use of *refrigerating* and *beating* ALTERANTS, two things deserve consideration, *viz.*

1. That *refrigerating* ALTERANTS given to the patient, the less they are diluted with aqueous liquors the less they refrigerate: because diluting with aqueous liquids contributes to the refrigeration of the animal fluids, though no cooling medicines be given; and therefore, the more you dilute refrigerating medicines, the more they refrigerate.

2. That *beating* ALTERANTS, the less they are diluted with aqueous liquors, the more they increase the heat of the blood: because they do more stimulate the solids, and quicken and strengthen the pulse; and thereby augment the *attrition* both of the *fluids* and *solids*; and *vice versa*.

§ 2977. *Obs.* 4. *Nitrous* and *acid* ingredients (though they have a *refrigerating* and *dissolvent* quality) may fitly be joined with *heating*, *corroborating*, and *incrassating alterants*, in compounding medicines for the cure of *putrid* fevers, where the fluids are too *thin* and the vital heat too little; *provided* that the proportion of those heating ingredients be such as may strengthen the action of the heart and arteries, and recover the animal fluids to their natural consistence.

The truth of this opinion may easily be apprehended, if it be considered that *acid* and *nitrous* medicines contribute much to alter the figure of the *alkaline*, *acid* and *dissolvent* particles which produce *putrid* and *pestilential* fevers, and may render such particles effete.

§ 2978. II. As to rules about prescribing for *adult persons*, *children* and *infants*; I need only give some general directions, *viz.*

Rule 1. Contrive your medicines so as to be most grateful to your patients; who should be allowed to chuse the form in which the medicines shall be given.

§ 2979. *Rule* 2. Never insist on the continuance of the use of a medicine which does not sit well on the patient's stomach, or which brings on any inconvenient effect.

§ 2980. *Rule* 3. In acute diseases, where much diluting is necessary, prescribe the doses in smaller quantities, to be taken more frequently, with a draught of such diluting liquor as you shall think proper after each dose.

§ 2981. *Rule* 4. In acute diseases, where the quantity of the animal fluids, and of the secretion, is *continually decreasing*, and the *vital strength* decaying, prescribe some proper cordial to be *in promptu*; a dose of which may be taken as occasion requires,
against

against faintness, loziness of the spirits, cold or clammy sweats.

§ 2982. *Rule 5.* In cases where purging EVACUANTS are wanted, first prescribe proper ATTENUANTS, by which means purgative medicines will prove more beneficial.

§ 2983. *Rule 6.* In prescribing purgatives, use only the milder kind, and those in moderate doses; except in some particular cases, wherein a quick and strong purge is wanted. Because a gentle purge will either not at all, or very little diminish the insensible perspiration.

It is in most cases better to purge a patient three or four times moderately than but once violently, as that will less diminish his strength.

§ 2684. *Rule 7.* In prescribing for children, observe that half the quantity of what is a proper dose for an adult person, may generally be a dose for a child eight or ten years old.

And the eighth part of a dose for an adult person may be a dose for a child of three years old.

And a tenth or twelfth part for infants within the first year.

§ 2985. To assist you, in some measure, in prescribing, I shall give you some formulae, viz.

℞ Pulv. è chel. cancr. simpl. gr. ii. antimon.
diaphoret. gr. i. aq. fluvial. ziss. aq. alexiter.
simpl. syr. balsamic. ā ā gut. xv. m. f. HAUSTUS bis terve in die exhibendus.

This is proper for a child of two or three months old, against an acrimonious quality in his blood.

℞ Sal. prunell. sal. absinth. ā ā ℥ss. aq. alexiter.
simpl. ℥xiv. syr. balsamic. ℥ii. m. f. JULEPUM,
cujus capiat partem quartam pro dosi horis
sextis, vel quartis, vel sæpius si postulaverit
occafio, contra febrem; vel julepum in hauttu-
lo; quatuor dividatur.

This is for a child five or six years old, under a fever, with an acrid acrimony in the contents of his stomach. Or the *whole* julep may serve as one draught for an *adult* person.

℞ *Antimon. diaphoret. gr. iv. pulv. æthiopic. gr. vi. fl. sulph. gr. iii. sal. prunell. gr. ii. m. & f. PULVIS pro una dosi.*

This *powder* may be given to a child of five or six years old, in a spoonful of sage tea, sweetened to the palate, drinking a draught of some diluting liquor after it, and may be repeated every six hours or oftener, when the pulse is quick, and the maturation in the small-pox does not proceed well.

§ 2986. *Draughts, mixtures and powders*, are the *properest forms* of medicines for CHILDREN. But for ADULTS, *pills, bolusses and electaries*, may be also advised. Thus,

℞ *Æthiop. mineral. rad. serpentar. virg. castor. russ. gum. ammoniac. āā ʒiʒs. ol. junip. gut. xii. syr. croci q. s. m. f. PILULÆ No. xxiv. quarum capiat iv. bis in die.*

Here every dose contains five grains of each of the solid ingredients, two drops of the chymical oil, and an equal part of the syrupus croci.

℞ *Cinnab. nativ. pulv. rad. serpentar. virg. mass. pil. gummos. āā ʒii. syr. croci. q. s. m. f. PILULÆ No. xxiv. quarum capiat iv. bis in die.*

Here each dose contains very nearly seven grains of each of the solid ingredients, and an equal part of the syrup, though the pills will be small.

℞ *Æthiop. mineral. ʒii. gum. guaiac. ʒi. conserv. lujulæ ʒiii. m. f. ELECTARIUM, cujus capiat partem quartam pro dosi semel in die.*

Here each dose contains ten grains of the *æthiops*, five grains of the *gum*, and an equal part of the *conserve*. If only one-fourth part of the ingredients be directed to be taken, the whole makes a *BOLUS*.

℞ *Antimon.*

R. Antimon. diaphoret. sal. prunell. ā ā ʒss. aq. cinam. simpl. ʒv. aq. nuc. moscat. syr. balsamic. ā ā ʒss. sp. nitr. dulc. gut. xxx. m. f.

JULEPUM, *cujus capiat partem quartam pro dosi horis sextis, phialâ prius agitâtâ.*

Here each dose will contain seven grains and half of the *antimony* and *sal prunell.* and seven drops and half of the *sp. nitr. dulc.* Or, I direct one ounce, which makes two large spoonfuls for a dose; then each dose will contain five grains of the *antimony diaphoret.* and of the *sal prunell.* and five drops of the *sp. nitr. dulc.*—But if the apothecary makes such a julep to be eight ounces instead of six, the patient will not have the quantity of the principal ingredients which his physician intended, and may suffer disadvantages by that means. But I need say nothing farther on the subject of prescribing, having already (LECT. XIII.) spoke largely on *various forms of medicines, &c.*

CONCLUSION.

I SHALL now conclude this *course of lectures*, which I have used my utmost endeavours to render useful to you.

§ 2987. The most important trust that can be committed to any one, next to the care of men's SOULS, is the *care of their bodies*, the *care of the preservation of their health*, and their *recovery from sickness.*

§ 2988. Every patient that shall apply to you to cure his disease puts his *life* into your hands: if you prescribe improper medicines you may destroy his life instead of removing his distemper.

§ 2989. You will, in the course of your practice, meet with many *melancholy difficult and doubtful cases*, and sometimes be at a loss what you had best do for the *relief* of the sick.

§ 2990. Bear with me, therefore, gentlemen, if I press

I press on your thoughts some very *pertinent* *ad-*
advice : *viz.*

1. Improve all *proper* means and opportunities for increasing your knowledge, not only by diligent studies, but by minuting down *uncommon* and difficult cases, and keeping copies of your prescriptions.

2. But the most important and best advice I can give, is to seek to God, by *daily prayer*, for all that *knowledge* and *wisdom* which you want and desire.

God himself has said (by one of his apostles)

"If any one of you lack wisdom, let him ask of God, that giveth to all men liberally and upbraideth not, and it shall be given him." James i. 5.

The direction is plain and the promise is *true* and *faithful*. I have always found it so.

But in your daily prayers, do not only ask of God knowledge *in general*, but beseech him to *direct*, to *bless* and *succeed* your endeavours for the RECOVERY of those sick persons whom his *Providence* may bring under your care.

And whenever God is pleased to grant your petitions, and to guide and prosper your endeavours for the recovery of your patients, return thanks unto him, and give him the praise and the glory : look upon yourselves as happy instruments, whom God has *honoured* in using you for the recovery of your patients.

§ 2991. Thus (through the blessed influence of the HOLY SPIRIT) have I done through the long course of my practice ; and have found great advantage and comfort in so doing. And, gentlemen, if you have found any advantage from the LECTURES I have read, I do assure you it is a kind *answer* from God, infinitely gracious, to my daily prayers ; and I hope you will *render thanks* to him for it.

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